ENGINEERING NEWS-RECORD

INDEX

VOLUME 151 JULY-DECEMBER, 1953

A

Accidents—Work injury rates in construction 1950-51 (table).....Oct. 8 133
Acoustics
"Fish-net" ceiling at the University of Arkansas, Fayetteville .....Dec. 3 *24
Glass fiber baffles kill noise in Toledo sports arena .....Dec. 24 *26

Aeronautics

Air Force wants cut in press program July 16 23
Airports
Airbases abroad Hedefine, Ferris, Nold, Seelye .....Aug. 20 11
Airport construction contracts 1951-53 (table) (F) .....Dec. 31 21
Belgian Congo airbase planned at Kamina .....Sept. 17 64
Edwards Air Force Base, Calif. roads built of asphalt and soil-cement Sept. 3 (F) *41
Egypt—Cairo airport plans....Nov. 19 72
France—our airbases are different W. G. Bowman.....Oct. 29 (F) *32
Great Britain—London airport expansion .....Oct. 15 46
Greenland bases to get more steel structures .....Aug. 6 24
Greenland-Thule airbase correction, A. E. Dore.....Dec. 10 11
Hammonton, N. J. may get air maintenance depot .....Sept. 17 50
Hangars
Belgium-concrete slab circling dome on pedestals, roofs hangar July 2 (F) *46
Boeing hangar at Seattle — credit due F. H. Groeninger.....Oct. 15 10
°Boeing hangar for flight tests—four acres of roof but only two columns inside .....Sept. 17 (F) *45
Cuba-Guatanamo Bay hangar with arched roof spanning 150 ft Nov. 12 *59
International Airport, N. Y. suspender frame supports cantilever July 23 (F) *32
Miramar, Calif. and Whidbey, Wash. jet hangar designs Nov. 12 (F) *39
Morocco-cantilever hangar for six bombers W. G. Bowman Aug. 27 (F) *36
Trussed three-hinged arch tie prestressed to hold length A. F. Campbell .....July 16 *48
U. S. Navy standardizes jet hangar designs .....Nov. 12 (F) *39
Westchester County Airport's timber trusses set new span record Sept. 3 (F) *31
Indianapolis paving reinforced with welded wire .....Dec. 10 *42
Joint Construction Agency—airbases abroad G. L. Blanchard....Oct. 1 12
Mexico-Acapulco airport terminal Sept. 10 *66
Milton, Fla. Whiting Field—high-speed channels spell low-cost drainage Ensign Howard Jacoby Nov. 5 (F) *41
Morocco aftermath—good airbases W. G. Bowman.....Aug. 27 (F) *30
Mountain Home Air Base, Idaho (unit prices) .....Oct. 8 195
Newark Airport terminal dedicated Aug. 6 24
Philadelphia runways (unit prices) Oct. 8 197
Plattsburg Barracks, N. Y. airbase scheduled .....Oct. 15 26
Portland, Ore. airport improved Aug. 20 60
Runway edges could be made thinner Nov. 26 37
San Bernardino, Calif. runway extension (unit prices) .....Nov. 26 59
San Francisco air terminal lags Oct. 22 38
Schenectady airport paving (unit prices) .....Sept. 17 86
Spain—air base job started...Oct. 29 25
Air and naval base locations revealed .....Dec. 31 22
Architect-engineer contract for airbase and Naval facilities awarded to four-firm combine.....Oct. 15 21
Bureau of Yards and Docks to handle military bases construction Oct. 1 22
For bases contractors name top management at N. Y. headquarters .....Dec. 10 *26
Has ok's for four airfields and two naval stations .....Aug. 20 29
Bases .....Aug. 27 e96
Bases programmed with funds for four jobs .....Aug. 6 23
Toledo advertises for bids....July 23 48
Toledo's Oak Openings Airport to be started .....Aug. 20 70
Turkey awards contracts for three airfields .....Oct. 29 72
Turkey base proposed .....Nov. 5 68
Helicopters
ASCE hear a paper on the helicopter Oct. 29 23
Heliport
Belgian roof heliport plan scrapped Dec. 17 49

Air Conditioning

Air conditioning split: custom vs packaged units .....July 16 151
Long Is. City office building air conditioned with package units.....Oct. 1 *36
Mennen plant in Morristown, N. J. has air conditioning, fluorescent lighting .....July 2 *32
Sunray Oil Corp. building reduces heat load on air conditioning plant by aluminum canopies over windows July 23 *26
Walter Reed Army Medical Center, Washington, D. C. windowless, air conditioned .....Dec. 31 (F) *33
Windowless plant for making electrodes has air conditioned, sealed interior .....Dec. 3 *26

Air Pollution

Camera aids air pollution research Oct. 8 248
University of Michigan investigates air pollution .....Dec. 10 80
Air raids
H-bomb threat points up need for protective construction .....Oct. 15 21
Stanford Research Institute compiles damage data from air attacks during World War II.....Nov. 12 72
Alaska—Defense construction under way Oct. 29 25

Aluminum

African aluminum mining projected on Volta River .....Aug. 27 58
Baltimore's Liberty Dam—aluminum suspension bridge .....Sept. 17 *36
Denver skyscraper to have aluminum panels, porcelain-enameled steel panels and large areas of glass Dec. 3 *22
New York City—aluminum-faced skyscraper at 57th St and Park Ave. Nov. 12 *23
New York City building at 99 Park Ave. to get aluminum skin.....Aug. 6 *25
New York City—99 Park Ave. skyscraper enclosed fast with 2-story aluminum panels .....Aug. 13 (F) *43
New York City building—wall-panel replacement F. P. O. Potter....Oct. 1 12
New York City skyscraper—revolution in building walls.....Sept. 3 e128
Panel walls: which trade does what? New York City's skyscraper 99 Park Ave. .....Oct. 29 *29
Traffic signal posts of aluminum reduce costs, N. Y. City.....Nov. 26 46
Tulsa, Okla. office building reduces heat load on air conditioning plant by aluminum canopies over all windows .....July 23 *26
American Academy of Sanitary Engineers Society proposed for certified engineers Aug. 6 25, Aug. 13 e120
American Assn. of State Highway Officials Meeting discusses construction funds J. R. Carr.....Nov. 19 (F) *25
American Municipal Assn.
Recommends direct dealings with Washington on federal aid work Dec. 10 28
American Public Health Assn. meets in New York .....Nov. 19 30
American Public Works Assn. meets in New Orleans .....Nov. 5 (F) 23
American Road Builders Assn.
County and Local Roads Div. hold first national conference. J. R. Carr Oct. 1 23
American Society for Engineering Education
Annual convention .....July 16 87
Proposals for changing the methods of accrediting courses in engineering schools .....Oct. 29 27
American Society for Testing materials Atlantic City meeting F. S. Merritt July 9 26
American Society of Civil Engineers
Collective bargaining issue surveyed Nov. 12 28
Four names added to honor roll Oct. 22 *26
New York meeting hears problems of transport, ore development Oct. 29 (F) *21
D. V. Terrell to head society Oct. 15 23
American Society of Heating & Ventilating
Engineers meet in Denver.....July 16 115
Andrew, Charles—consulting engineer for Washington State Toll Bridge Authority .....Aug. 20 (F) *101
Aqueducts
San Diego doubles aqueduct capacity July 23 *35
Arabia—Six-year plan for Middle East Nov. 5 67

* Illustrated; e, editorials; (F) Articles over a page

Architects

Architect and architect-engineer new business in 1952 (tables).....Oct. 8 77
Connecticut's registration law. P. W. Genovese .....Oct. 15 6
Dallas, Tex. court upholds architect's judgment in favor of plies for hospital .....July 2 27
Frank Lloyd Wright Comment on engineers .....Nov. 5 e128
N. A. Homsy .....Dec. 3 10
Architectural League to offer award for work in architecture and allied fields Dec. 3 27
Associated General Contractors
Fall meeting criticizes toll road specifications R. H. Dodds.....Sept. 24 *23
1953 construction to set new record Sept. 17 23
Staff shifts .....Aug. 20 26
Association of Western State Engineers meet .....Sept. 3 24

Atomic Energy

Atom bombs—cleaning of surfaces contaminated by radioactivity...Sept. 10 90
Atomic test houses.....July 16 23
Atomic Utilities of Arizona formed July 16 23
Bechtel and Kidde will study power prospects of the atom.....Oct. 15 60
More atomic design data needed July 9 112
Prospects for nuclear power brighten July 23 e108
Sphere enclosing experiments on atomic power .....Nov. 5 *47

Atomic Energy Commission

Blast effects on glazing materials studied .....Oct. 8 253
Building rules may be liberalized July 16 23
Building the Idaho reactor test station Dec. 10 (F) *45
Contractors will now pay state sales tax in Tennessee .....Oct. 15 60
First full-scale plant let to Westinghouse .....Oct. 29 24
Idaho building reactor test station Dec. 10 (F) *45
Idaho Station builds first full-scale plant for radioactive wastes Aug. 6 (F) *37
Joppa, Ill. plant dismisses Ebasco Services as construction agent for electric plant .....Aug. 13 (F) *21
Joppa, Ill. steam plant shuts down in spite of AFL.....Sept. 24 27
Los Alamos laboratory building Dec. 24 26
Nuclear powerplant needs private industry to finance.....Dec. 17 67
Paducah: labor lesson for an industry G. T. Orick.....Nov. 19 (F) *21
Portsmouth area—an A-plant brings prosperity and problems to southern Ohio .....Nov. 19 (F) *40
Richland, Wash. wants independence as a city .....Aug. 20 69
Spending will rise in 1953.....Sept. 3 99
TVA claims victory in supplying power to Paducah, Ky.....Sept. 3 22
Uranium processing plant in Ohio needs funds for roads.....Sept. 3 *26
What reactor testing involves..Dec. 10 48
Audit Bureau of Circulations.....Oct. 15 29
Auditoriums see Stadiums
Automobile licensing revenue in Florida aids school financing.....Sept. 17 24

B

Bacon, G. W. of Ford, Bacon & Davis, dies .....July 30 23
Beach protection see Shore protection

Beams

International experts report on prestress fire resistance.....Nov. 19 63
94-ft concrete roof beams set record for prestressed members cast in place, St Louis gymnasium.....Nov. 19 *29

Bonds

Bond yields—per cent (table)..Oct. 8 139
Georgia preparing school building bonds Dec. 31 26
International City Managers' Assn. surveys cities on special assessments July 2 43
Investment bankers raise half a billion for construction .....Dec. 24 57
Money may tighten but the trend won't last long .....Nov. 26 62
Most of bond issues carry as voters ok construction .....Nov. 12 21
St Louis bond vote finances apartments and plaza park.....Nov. 12 50
Sec. of Treasury offers bondholders longer terms .....Sept. 17 95
State and municipal bonds sold for new construction—first seven months 1952 (table) .....Aug. 13 91

Book Reviews

Creators of wealth. A. P. Greensfelder July 16 108
Engineering problems in the reconstruction of the Brooklyn Bridge. D. B. Steinman .....July 16 108
Engineering valuation and depreciation. Marston, Winfrey & Hempstead Aug. 27 62
Fontan project hydraulic model studies Nov. 19 94
History of civil engineering. Hans Straub .....Dec. 10 101
History of strength of materials. S. P. Timoshenko .....Sept. 10 96
Large dam reports.....July 1 108
Manual of precast concrete construction. F. T. Collins.....Aug. 20 95
Manual of traffic engineering studies Dec. 31 44
Measurements of the structural behavior at Fontana Dam.....Nov. 19 94
Prestressed concrete. Kurt Billig Aug. 13 69
Public grounds maintenance handbook. H. S. Conover.....Nov. 19 94
Quality concrete. Concrete Assn. of India .....Nov. 19 94
Railroad engineering. W. W. Hay Sept. 3 79
Simplified design of roof trusses for architects and builders. Harry Parker Aug. 20 95
Specifications. H. G. Edwards..Oct. 8 299
Steel rigid frames manual design and construction. M. P. Korn....Aug. 27 62
Steelwork in buildings. W. B. Scott Nov. 5 73
Structural shop drafting Vol. II Nov. 19 94
Symposium of prestressed concrete statically indeterminate structures Nov. 19 94
Toll-road developments and their significance in the provision of expressways. H. E. Davis & others..Oct. 8 299
Town design. Frederick Gibberd Dec. 17 58
U. S. 40 cross section of the U. S. of America. G. R. Stewart.....July 16 108
Welding aluminum .....Nov. 19 94
Breakwaters — Underwater breakwaters created by explosives.....Oct. 8 254

Bridge accidents and failures

Los Angeles Bridge at Rosecrans Ave. approach destroyed by fire....Oct. 8 *74

Bridge Construction

Bridge bid price index, Calif. (table) Oct. 8 109
Buenos Aires continuous—girder railway bridge of reinforced concrete over highway.....July 23 (F) *53
Kootenai River bridge will carry heavy log hauls .....Sept. 24 *28
New York State Thruway bridge—foundations of hollow boxes precast July 9 (F) *33
Pencoyd Viaduct, Pa. is exercise in coordination .....Oct. 1 *24
Suspension bridge cables protected by man-made islands, Chesapeake Bay Dec. 24 (F) *36

Bridge Design

American Institute of Steel Construction chooses 1952's most beautiful bridges .....Oct. 1 *25
American Institute of Steel Construction sets rules for bridge competition July 30 25
Baltimore's Liberty Dam—aluminum suspension bridge.....Sept. 17 *36
Belgian bridge at Namur spans the river without piers. G. N. Bailbachevsky .....Aug. 13 (F) *58
Paul Bunyan did it! H. R. Powell July 2 12
Covered bridge comeback, Sheffield, Mass. .....Dec. 24 *35
Nebraska prize winner painted black Sept. 17 *41
Prestressed span is double-decked for railway on top, coal conveyor below Nov. 5 (F) *63
"Semi-floating" piers, geared to tides, to support bascule bridge at Seattle Dec. 3 *23
Sicily—precast prestressed concrete bridge is lightweight.....Dec. 17 *49
Single piers with fan-shaped tops support discontinuous concrete span, Brazil .....Dec. 10 *65
Tests show way to thinner slabs on railroad bridges.....Dec. 10 (F) *83
Wrap-around cables prestress long continuous-girder bridge. Leonhardt & Dobell .....Sept. 3 (F) *43

Bridges

Alaska
Cordova prestressed-concrete bridge (unit prices) .....Oct. 8 203
Argentina
Buenos Aires continuous-girder railway bridge of reinforced concrete July 23 (F) *53
Atlanta, Ga.
Johnson Road Bridge (unit prices) Aug. 13 86
Baltimore
Aluminum suspension bridge, Liberty Dam .....Sept. 17 *36
Bay St Louis, Miss.
Dedication of bridge.....July 30 22
Belgium
Ardennes Bridge at Namur put across the river without piers. G. N. Bailbachevsky .....Aug. 13 (F) *58
Boston
R. C. Smith bridge in Dorchester Bay area license sought.....Sept. 3 24
Brazil
Single piers with fan-shaped tops support continuous concrete span Dec. 10 *65
Carlsbad, Calif.
Shoring frame aids bridge under pinning .....Nov. 19 *28
Cedar River, Iowa
Girder bridge continuous over eight spans .....July 30 *25
Chamberlain, S. D.
Two relocated bridges dedicated on Missouri River .....Dec. 10 27
Chesapeake Bay Bridge
Man-made islands protect bridge cables .....Dec. 24 (F) *36
Chicago
Improvement program (table of costs and funds) .....Dec. 31 38
Chickahominy River, Va.
Bridge and approaches (unit prices) Sept. 24 66
Cleveland
Inner Belt bridge—first contract Sept. 10 60
Columbia River, Ore.
Centilever bridge (unit prices) Oct. 29 88
Covington, Ky. and Cincinnati, Ohio
Kentucky buys bridge.....July 23 27
Dayton, Ohio
Patterson-Riverside bridge (unit prices) .....Oct. 8 201
Delaware Water Gap
Bridge opens .....Dec. 24 *23
Staggered piers aid erection..Sept. 10 *30
Detroit
Expressway overpass (unit prices) Dec. 17 66
Free versus toll bridges.....Dec. 31 e72
Germany
Danube Valley bridge completed Dec. 24 *35
Danube Valley bridge to be long continuous-span prestressed concrete. Leonhardt & Dobell....Sept. 3 (F) *43
Great Britain
Prestressed span is double-decked for railway on top, coal conveyor below Nov. 5 (F) *63
Hood Canal, Washington State
Floating bridge plans approved Nov. 19 27
Idaho
Painting and maintenance of wooden bridges with cage scaffold hung from side of bridge.....July 23 *43
India
Ganges River railway bridge bids to be asked .....Oct. 29 72
Italy
Straits of Messina suspension bridge favored .....Sept. 17 64
Kentucky highway bridge
Limestone surfacing (unit prices) Oct. 22 50
Kootenai River, Mont.
Private bridge will carry heavy log hauls .....Sept. 24 *28
Leavenworth, Kan.
Missouri River bridge piers (unit prices) .....Sept. 24 66
Long Island
Captree Causeway under construction Oct. 29 *26
Los Angeles
Prestressed concrete footbridge tested July 16 *115
Miami Beach, Fla.
Causeway controversy causes city manager to quit.....Dec. 17 (F) *47
Milwaukee
Cost sliced by design switch Aug. 20 *64
New Jersey Turnpike
Way cleared for link with New Jersey Dec. 17 25
New Orleans
Toll bridge engineers selected July 16 26
New York City
Brooklyn Bridge reconstruction nearly done .....Sept. 3 *51
N. Y. Central replacing Harlem River span with two lift spans Dec. 3 *45
Welfare Island lift bridge wheel Oct. 22 *34

* Illustrated; e, editorials; (F) Articles over a page

New York State Thruway
Bridges—one per mile....July 16 (F) *51
Building buoyant boxes for substructure .....July 9 (F) *33
Concrete caissons towed to bridge site Oct. 22 *22
Foundations being laid.....Sept. 10 *40
Newark Bay bridge
Bids asked for New Jersey Turnpike extension bridge (map)....Oct. 29 *23
Oklahoma highway bridge (unit prices) .....Sept. 3 96
Oklahoma highway bridge and culverts (unit prices) .....Nov. 12 90
Omaha, Neb.
Prize winning bridge painted black Sept. 17 *41
Philadelphia
Pencoyd Viaduct is exercise in coordination .....Oct. 1 *24
Philadelphia-Gloucester
Delaware River bridge speeded by Belgium steel .....Nov. 12 26
Foundation contract awarded July 23 27
San Francisco Bay
Alternate bay crossing application to be filed .....Dec. 31 24
Army Street to Bay Farm Island crossing barred by Navy's unbuilt planes .....Aug. 27 24
Consultants engaged for Bay study Sept. 24 24
Curved crossing seen as answer to Army Engineers' veto.....Nov. 12 23
Map of Bay crossings under construction, authorized or under study July 2 *25
San Francisco-Golden Gate
Approach improvement bid...Aug. 27 26
Scaffold fails, two workmen die Nov. 12 23
Traveling scaffolds to be changed Nov. 26 23
Truss stiffening job proceeds..July 2 24
Seattle
Army Engineers reports on three locations as favorable for crossing Dec. 10 27
Bascule bridge to be supported by "semi-floating" piers, geared to tides .....Dec. 3 *23
Railway bridge replaced by new one July 9 *25
Shipping interests fight bridge plan Aug. 27 24
Sheffield, Mass.
Covered bridge comeback....Dec. 24 *35
Sicily
Precast prestressed concrete bridge weighs only 140 psf of roadway Dec. 17 *49
Spokane, Wash.
Old bridge dismantled for re-erection elsewhere .....Sept. 10 *40
Straits of Mackinac Bridge, Mich.
Bonds for bridge.....Dec. 17 67
Financed by bonds.....Dec. 24 57
Tampa, Fla.
Lower Tampa Bay bridge—prestress heat alternates. M. N. Quade Nov. 12 12
Turkey
Bosporus bridge proposed....Aug. 27 58
Istanbul bridge planned.....Nov. 26 53
Viet-Nam
Red River bridge to be constructed Dec. 10 76
Washington
Columbia River toll bridge bids Sept. 10 26
Kings County bridge—prestress economy doubted. H. M. Hadley Sept. 3 10
Prestressing in England. D. H. Lee July 9 6

Building Accidents and Failures

General Motors plant at Livonia, Mich. destroyed by fire. Aug. 20, *28, Aug. 27 e96
General Motors plant at Livonia, Mich. report on fire.....Oct. 15 24
Inspection insurance. G. L. Blanchard .....Dec. 17 11
Lodi, Calif. warehouse truss failure. J. J. Polivka.....July 9 6
Scarsdale building collapse causes reported by engineers.....Nov. 26 22
Scarsdale, N. Y. building collapse investigation .....Nov. 19 26
Scarsdale building collapse teaches the lesson of competent inspection Nov. 26 e84
Scarsdale, N. Y. concrete building near completion collapses .....July 16 26

Building Construction

Arch tie prestressed to hold length in hangar. A. F. Campbell.....July 16 *48
Assembly-line precasting, erection yield 10,000 sq ft of factory daily, Houston, Tex. Hilton & Coulson..Dec. 10 (F) *40
Barrel roof completed after textile machinery is moved into mill Oct. 29 (F) *62
Bogota, Colombia, factory roof of concrete barrel vaults applied by vacuum Nov. 19 (F) *61
Chicago bids for engineering societies headquarters .....Nov. 26 26
City-County building Detroit, facts and figures .....Aug. 6 (F) *29
Concrete pumped 17 stories in bolted steel hospital, Minneapolis Aug. 27 (F) *43
Construction method of building freezer room in ice cream plant with cellular-glass insulation block.....July 9 *43
Contractor new business in 1952—heavy construction and building construction (charts & tables)...July 2 (F) *70
Costs
American Appraisal building cost index (table) .....Oct. 8 97
ENR cost indexes in 21 cities (charts) Oct. 8 *84
ENR cost indexes in 21 cities 1948-1953 (table) .....Oct. 8 93
Index of building costs—U. S. average 1926-29. E. H. Boeckh & Assoc. (table) .....Oct. 8 99
Public utility construction costs—Handy-Whitman index (tables) Oct. 8 103
Where the building dollar goes—Turner Construction Co. (tables) Oct. 8 148
Estimating construction budgets in N. Y. City, 1953 (unit prices) Oct. 8 161
Excavating presents tricky problem on park-topped garage, Pittsburgh Nov. 5 (F) *48
Ford plans construction to beat Chevrolet sales .....Sept. 24 74
Great Lakes Training School erects three precast rigid-frame warehouses Nov. 6 (F) *30
Gymnasium 94-ft concrete beams prestressed cast in place, St Louis Nov. 19 *29
Index round-up 1926-1953 (table) Oct. 8 95
Industrial building contracts by type of industry 1953 and 1952 (table) July 9 89
Lift-slab method used for six-story nurses' residence at Winnipeg, Man. Nov. 12 *25
Lifting beams speed tilt-up of walls for school in Washington State July 16 *27
Mortgage market this year.....Nov. 5 101
Nailed trusses prove cheaper than bolted bowstring trusses.....Dec. 17 *35
New York City busy replacing old schools and building new....July 9 *44
New York City—Long Is. City office building air conditioned with package units .....Oct. 1 *36
New York City—99 Park Ave. skyscraper enclosed fast with 2-story aluminum panels.....Aug. 13 (F) *43
New York City skyscraper—aluminum panels for walls.....Sept. 3 e128
New York City skyscraper—wall-panel replacement. F. P. O. Potter Oct. 1 12
North Carolina votes $72 million for construction .....Oct. 15 60
Overbuilt in factories?.....Sept. 10 e184
Paper mill foundations of sand compacted by vibration. A. Mystokdwski July 2 (F) *35
Portsmouth area—an A-plant brings prosperity and problems to southern Ohio .....Nov. 19 (F) *40
Prestressed, precast three story office is tallest of that type in U. S., Baltimore. F. W. Wilcox....Nov. 26 (F) *31
Schools see Public works
Sell-lease plans bring more construction business .....Sept. 24 72
Tobyhanna, Pa. U. S. Signal Corps. depot has roof with plastic skylights and unusual form work..Dec. 3 (F) *47
Warehouses needed .....Aug. 13 91

Building Design

Auditorium's long-span roof supported by steel lamella.....Nov. 26 *41
Bomb resistant, windowless, Medical Center at Washington, D. C. Dec. 31 (F) *33
Casablanca, Morocco, construction of new modernistic buildings gives a spectacular skyline .....Aug. 13 (F) *32
Chicago coliseum roof will span 500,000 sq ft of unobstructed floor Dec. 10 (F) *25
Cincinnati armory's flat roof to be supported by arches.....Dec. 3 *43
Colombia—tropic market built "open" for maximum air circulation Aug. 6 (F) *53
Concrete slab circling dome resting on pedestals, roofs hangar in Belgium July 2 (F) *46
Dallas hotel to feature cantilevered floor slabs .....Oct. 15 24
Denmark auditorium can be changed by moving sliding wall and bringing up seats in sections...Dec. 3 (F) *51
Denver skyscraper to have aluminum panels, porcelain-enameled steel panels and large areas of glass Dec. 3 *22
Earthquake resistance
California passes law for design of public buildings .....July 23 25
Caracas, Venezuela, office building designed for climate, earthquakes Aug. 20 *78
Portland, Ore. BPA building designed to resist seismic loads..Oct. 15 (F) *30
Seismic design not simple. J. E. Rinne .....Oct. 15 6
12-story tower features floating foundation, heat-pump Nov. 19 (F) *47
ENR survey of building codes shows inconsistencies in skyscraper wall requirements. F. S. Merritt Dec. 24 (F) *21
Fire protection
Fire safety responsibility....Oct. 15 e80
International experts report on prestress fire resistance of concrete beam .....Nov. 19 63
New fire protection code governs electrical work .....Sept. 3 26
Plants can be safe. F. H. Gage Oct. 22 13
Underwriters revise Fire Prevention Code .....Aug. 13 54
France—our airbases in France are different. W. G. Bowman Oct. 29 (F) *32
Germany—stadium roof spans 279 ft for full view from bleachers..July 16 *82
Hangar for flight tests—four acres of roof but only two columns inside Sept. 17 (F) *45
Hemispherical aluminum building with no interior supports, Longview, Texas Dec. 17 26
Igloo-like structures formed by spraying concrete on rubber balloon forms used for storing grain, Jordan Dec. 24 *45
India—office building protected from glare by concrete louvres....Dec. 31 *41
Laminated timber arches span 207 ft. for Montana State University Oct. 8 *78
Mexico City shopping center building suspended from two concrete arches Aug. 20 *77
New York City International Airport hangar roof supported by suspender frame .....July 23 (F) *32
Panel system for houses presented by University of Illinois.....Dec. 3 26
Prefabrication and glued lamination bring in low-cost school, Everett, Mass. .....Sept. 10 22
School quickly constructed when contractors submit designs..Nov. 5 (F) *54
Seattle, Wash. office building—hollow members double as heat ducts in steel-frame .....Oct. 29 *43
Skokie laboratory features design economy .....Aug. 20 *41
Sphere enclosing experiments on atomic power .....Nov. 5 *47
U. S. Navy standardizes jet hangar designs .....Nov. 12 (F) *39
Westchester County Airport hangar's timber trusses set new span record Sept. 3 (F) *31
Westinghouse's electroplating plant uses corrosion-resistant materials Sept. 17 *39
Wind resistance
Plywood vs tornadoes. N. S. Perkins July 23 12
Windowless building, Armed Forces Institute of Pathology, Washington, D. C. .....Nov. 5 *46
Windowless plant for making electrodes has air conditioned, sealed interior Dec. 3 *26

Building Design see also Beams, Columns, Concrete, Girders, Heating & Ventilating, Roofs

Building Laws and Regulations

Akron revises building code for parking garages .....Nov. 19 57
California passes earthquake design law on public buildings .....July 23 25
California seeks to end confusion in state agencys' building codes..Aug. 13 26
Chicago ordnance requires built-in parking in new buildings.....Sept. 3 55
Code formula questioned. R. W. Stewart Sept. 17 12
Dallas amends code to improve fire-fighting for buildings under construction .....July 16 26
ENR survey of building codes shows inconsistencies in skyscraper wall requirements. F. S. Merritt Dec. 24 (F) *21
Fire Prevention Code revised by underwriters .....Aug. 14 54
Milwaukee passes ordinance requiring loading berths in new buildings Dec. 10 61
New building code approach needed Dec. 31 e72
New fire protection code governs electrical work .....Sept. 3 26
New York State to discuss multiple housing code .....Dec. 3 65
North Carolina adopts new building code .....July 9 50

Buildings

Aiken, S. C.
School quickly constructed when contractors submit designs..Nov. 5 (F) *54
Albuquerque, N. M.
Earthquake-resistant tower features floating foundation, heat-pump Nov. 19 (F) *47

Australia
Newcastle textile mill machinery moved into mill, then barrel roof completed ....Oct. 29 (F) *62
Baltimore
Building to bridge garage....Aug. 20 29
Office building of three stores as U. S. tallest prestressed. F. W. Wilcox .....Nov. 26 (F) *31
Belgium
Hangar, circular, of concrete July 2 (F) *46
Bethesda, Md.
Medical Research Center dedicated July 16 *56
Beverly Hills, Calif.
Hotel contract let .....Aug. 20 29
Brazil
Sao Paulo's reinforced concrete building houses newspaper and hotel Nov. 26 *53
Calverton, N. Y.
Grumman Aircraft Engineering plant enclosed by concrete sandwich panels and steel-and-aluminum ones Aug. 20 *25
Canada
Millhaven, Ont. synthetic fiber plant started .....Dec. 3 27
Montreal hotel to be built over plaza of railway station .....Sept. 10 60
Toronto Confederation Life Association building to join "Insurance Row" .....Aug. 13 54
Winnipeg, Man. Lift-slab method used for six-story nurses' residence .....Nov. 12 *35
Chicago
Buildings may be constructed over train sheds of Union Station Oct. 15 *59
Coliseum roof will span 500,000 sq ft of unobstructed floor...Dec. 10 (F) *25
Concrete parking garage to cantilever over street .....July 16 25
Great Lakes Training School erects three precast rigid-frame ware houses .....Nov. 5 (F) *30
Proposed civic center .....Nov. 12 *50
Prudential Insurance Co. skyscraper being constructed .....Aug. 6 26
Cincinnati
Armory's flat roof to be supported by arches .....Dec. 3 *43
Colombia
Bogota automobile show room's long-span honeycomb ceiling takes heavy reinforcing .....July 16 *86
Bogota factory roof of barrel vaults Nov. 19 (F) *61
Bogota office building being built in sections .....Sept. 17 *57
Girardot—tropic market built "open" for maximum air circulation Aug. 6 (F) *53
Columbus, Ohio
Exposition building erected fast Sept. 3 *22
Corpus Christi, Tex.
Auditorium's long-span roof supported by steel lamella.....Nov. 26 *41
Covington, Ky.
School construction (unit prices) Dec. 24 *56
Cuba
Unions to build hotel and a housing project .....Dec. 24 45
Dallas, Tex.
Court upholds architect's judgment in favor of piles for hospital July 2 27
Hotel to feature cantilevered floor slabs .....Oct. 15 24
Republic National Bank and office building in construction....July 16 *57
Dearborn, Mich.
Ford simulates plant fire in tests using pitch vapor seal in roofing Nov. 5 24
Denmark
Auditorium can be changed by moving sliding wall and bringing up seats in sections.....Dec. 3 (F) *51
Denver, Colo.
Mile High Center skyscraper to have aluminum panels, porcelain-enameled steel panels and large areas of glass .....Dec. 3 *22
Detroit
City-County building cuts steel erection time in half.....Aug. 6 (F) *29
Hudson store—shopping center Dec. 17 (F) *43
Egypt
Cairo hotel to be built.....Dec. 17 52
El Salvador
Hospital planned .....Sept. 10 69
Everett, Wash.
Wood techniques bring in low-cost school .....Sept. 10 *22
Fayetteville, Ark.
University of Arkansas "fish-net" ceiling .....Dec. 3 *24
Ferndale, Mich.
Public library (unit prices)....Oct. 8 *190
France
Our airbases in France are different. W. G. Bowman .....Oct. 29 (F) *32
Franconia, Va.
Warehouse roofed with timber being built for government's supplies July 16 *56
Germany
Dortmund stadium roof spans 270 ft July 16 *82
Frankfurt telephone building rising Sept. 10 *40
Hoquiam, Wash.
Lifting beams speed tilt-up of walls for school .....July 16 *27
Houston, Tex.
Assembly-line precasting, erection yield 10,000 sq ft of factory daily. Hilton & Coulson .....Dec. 10 (F) *40
Shamrock Hotel addition proposed July 23 27
Idaho
Building the AEC reactor test station Dec. 10 (F) *45
India
Bombay office building protected from glare by concrete louvres..Dec. 31 *41
East Punjab starts from scratch to build new capital city..Sept. 10 (F) *65
Italy
Turin factory to be extended over the river .....Dec. 31 41
Vicenza train shed .....Nov. 5 *47
Jesup, Ga.
Paper mill foundations of sand compacted by vibration. A. Mystkowski July 2(F) *35
Lancaster, Pa.
Windowless plant for making electrodes has air conditioned, sealed interior .....Dec. 3 *26
Lexington, Ky.
Contractors bid on plants....Nov. 26 62
Lodi, Calif.
Warehouse truss failure. J. J. Polivka July 9 6
Longview, Tex.
Hemispherical aluminum building with no interior supports...Dec. 17 26
Los Alamos, N. M.
Atomic research laboratory building Dec. 24 26
Los Angeles
Drilling and under-reaming refuse fill foundations for factory.Sept. 17 *41
Maumee, Ohio
Anderson Truck Terminal—college-boy construction crew makes AFL unhappy .....July 2 29
Mexico
Acapulco airport terminal....Sept. 10 *66
Mexico City shopping center suspended from two concrete arches Aug. 20 *77
Miami, Fla.
Florida's tallest office building July 16 *66
Milwaukee, Wisc.
Freezer room completely enclosed with insulation block .....July 9 *43
Minneapolis
Medical Center—concrete pumped 17 stories .....Aug. 27 (F) *43
Missoula, Mont.
State University fieldhouse laminated timber arches span 207 ft....Oct. 8 *78
Morocco
Casablanca construction of new buildings gives old city a modern-istic skyline .....Aug. 13 (F) *32
Morristown, N. J.
Mennen plant has fluorescent lighting, air conditioning.....July 2 *32
Mountaintop, Pa.
Factory illuminated by new-type incandescent lamps .....Nov. 26 *26
New York City
Aluminum-faced skyscraper at 57th St and Park Ave.....Nov. 12 *23
Coliseum project under way...Nov. 26 25
Cooper Union celebrates centennial Sept. 17 *40
International Airport hangar roof supported by suspender frame July 23 (F) *32
Long Is. City office building air conditioned with package units Oct. 1 *36
Merchandising center planned for West 43rd and 44th Streets. Oct. 8 78
New York Produce Exchange site to have new skyscraper.....Oct. 8 74
Oct. 15 60
99 Park Ave.—aluminum panels for walls .....Sept. 3 e128
99 Park Ave. building to get aluminum skin .....Aug. 6 *25
99 Park Ave. skyscraper enclosed fast with 2-story aluminum panels Aug. 13 (F) *43
99 Park Ave. skycraper's panel walls —which trade does what? Oct. 29 *29
99 Park Ave. wall-panel replacement. F. P. O. Potter.....Oct. 1 12
Site over Pennsylvania Railroad tracks proposed for merchandise mart .....Oct. 1 26
Socony-Vacuum building 42 stories high, to occupy entire block.July 30 26
State Insurance Fund buildings (unit prices) .....Oct. 8 *189
Oakland, Calif.
Safeway Stores to be built by N. Y. real estate firm then leased to Safeway .....Sept. 24 72
Peru
Lima hospital is earthquake resistant Oct. 8 *230
Philadelphia
Penn Center begins with 20-story skyscraper .....Nov. 26 24
Pittsburgh
Park-topped underground garage Nov. 5 (F) *48
Westinghouse's electroplating plant uses corrosion-resistant materials Sept. 17 *39
Portland, Ore.
BPA building designed to resist seismic loads .....Oct. 15 (F) *30
Portsmouth, Ohio
A-plant brings prosperity and problems to southern Ohio..Nov. 19 (F) *40
Portsmouth, Va.
New Navy building.....Nov. 26 26
Radford, Va.
Army plans arsenal expansion..Dec. 3 26
St. Louis, Mo.
Gymnasium concrete roof beams 94-ft long set record for prestressed members cast in place.....Nov. 19 *29
San Jose, Calif.
New Ford plant.....Aug. 6 26
Schenectady, N. Y.
Atomic sphere .....Nov. 5 *47
Seattle
Boeing Airplane Co.'s hangar for flight tests .....Sept. 17 (F) *45
Gypsum plant and plaster mill to be built .....July 30 27
Hollow members double as heat ducts in steel-frame office building Oct. 29 *43
Skokie, Ill.
Laboratory structure embodies design economics .....Aug. 20 *41
Springfield, Delaware
High school (unit prices)....Aug. 20 146
Stillwater, Okla.
Research center planned for college campus .....Sept. 10 54
Tobyhanna, Pa.
U. S. Signal Corps. depot roof has skylights covered by plastic domes Dec. 3 (F) *47
Tulsa, Okla.
Sunray Oil Corp. building reduces heat load on air conditioning plant by aluminum canopies over windows .....July 23 *26
Venezuela
Caracas auditorium .....Sept. 10 *69
Caracas office building to be sheathed in aluminum and earthquake proof Aug. 20 *78
Five new hotels planned...Aug. 20 81
Warwick, R. I.
School lift-slab job delayed by double trouble .....Nov. 19 26
Washington, D. C.
Walter Reed Army Medical Center is bomb resistant .....Dec. 31 (F) *33
Security Square will combine bus terminal, heliport, garage, offices and bomb shelter .....July 23 45
Windowless building, Armed Forces Institute of Pathology .....Nov. 5 *46
Wellsley, Mass.
Highway maintenance and traffic building and laboratory (unit prices) .....Dec. 3 *84
White Plains, N. Y.
Westchester County Airport hangar's timber trusses set new span record Sept. 3 (F) *31
Worcester, Mass.
Highway foreman's garage and district administration building (unit prices) .....Dec. 3 *84
York, Pa.
Manufacturer moves to country Sept. 3 *24
Buildings see also Garages, Housing, Public Works, Shopping Centers
Burma
Huge development of industry and resources planned .....Oct. 15 45
Burns, Arthur F. to head Council of Economic Advisers....July 23 (F) *60
Bus terminals
Washington, D. C. building will combine bus terminal, heliport, garage, offices and bomb shelter ....July 23 45
Business & Defense Services Administration
Industry's attitude will determine its future .....Oct. 15 59
Business trends
What eight business indicators show Dec. 17 *69

C

Cables and Cableways
Mt Greylock, Mass. tramway authorized .....July 23 26
Switzerland—Grand Dixence Dam cement brought to job by 11 mile long ropeways. W. G. Bowman Dec. 3 (F) *32
Caissons
Concrete caissons towed to New York State Thruway bridge site....Oct. 22 *22

* Illustrated; e, editorials; (F) Articles over a page

Canals

Berm shaper designed for canal work. J. E. Ricker.....Nov. 19 *75
Columbia Basin irrigation canal develops cracks.....Aug. 20 28
Intracoastal Waterway—Algiers Lock gate design reduces filling turbulence.....Nov. 26 (F) *42
Lower cost irrigation canal linings. T. V. D. Woodford.....Nov. 5 (F) *35
Missouri-Souris diversion scheme in the Pick-Sloan plan to be revised (map).....July 30 *24
Netherlands—open-cut tunnel to go under canal at Velsen for vehicles and railway.....Nov. 19 (F) 67

Ceilings
Bogota automobile show room's long span honeycomb ceiling takes heavy reinforcing.....July 16 *86
"Fish-net" ceiling suspended at University of Arkansas, Fayetteville.....Dec. 3 *24

Cement

Brazil to grant cement plants five-year exemption from taxes.....Sept. 24 51
Cement Institute case ended.....Sept. 3 98
Turkey plans 38 cement mills.....Nov. 12 63

Channels
Baltimore channel improvements recommended.....July 23 49

Cities

Chicago outlines improvement program (table of costs and funds).....Dec. 31 38
Heavy federal taxes seen municipal drain.....Dec. 10 62
Ottawa adding new federal structures.....Dec. 10 55
Richland, Wash. "atom city" wants independence.....Aug. 26 69

Cities see also Planning

City managers
Miami Beach, Fla. city manager quits over causeway controversy.....Dec. 17 (F) *47
Miami Beach manager goes back on job.....Dec. 24 25
Collins, Sammy, lays pipes under water.....Aug. 13 (F) *62

Concrete

Aggregates
Design data for lightweight aggregate concretes readied.....Dec. 10 89
Slippery when wet—polished aggregates. C. E. Larson.....Oct. 29 (F) *45
Specifications for lightweight aggregates ok'd by ASTM.....July 9 26
Vaitarna Dam, India, aggregates cooled on belts. Bertsch & Silvera.....Sept. 3 (F) *37

Fly ash
Baltimore's Liberty Dam becomes the East's first fly-ash concrete dam.....Sept. 17 (F) *35

Forms
Accordion form panel of wood strips used in some of our airbases in France. W. G. Bowman.....Oct. 29 (F) *39
Glass-fiber insulation boards forms for roof of Signal Corps. depot.....Dec. 3 (F) *47
Shop-built traveling form speeds sewer job, Brooklyn, N. Y. J. R. Owen.....Nov. 19 (F) *50
Igloo-like structures formed by spraying concrete on rubber balloon forms used for storing grain. Jordan.....Dec. 24 *45
Michigan State College develops new process which speeds up concrete hardening.....Nov. 5 70
Popcorn concrete used in our airbases in France. W. G. Bowman.....Oct. 29 (F) *32

Precasting
Assembly-line precasting, erection yield 10,000 sq ft of factory daily, Houston. Hilton & Coulson.....Dec. 10 (F) *40
Building panels precast in plastic forms.....Oct. 22 *33
French housing project uses prefab elements.....Sept. 3 (F) *60
Great Lakes Training School erects three precast rigid-frame warehouses.....Nov. 6 (F) *30
Hollow boxes precast for Tappan Zee Bridge, Hudson River.....July 9 (F) *33
Lifting beams speed tilt-up of walls for school.....July 16 *27
Pigeon Hole Parking garages now of precast concrete, formerly steel racks.....Oct. 8 *75
Sandwich concrete panels and steel-and-aluminum panels enclose Gruman Aircraft plant.....Aug. 20 *25
Vibro-press concrete panels used in our airbases in France. W. G. Bowman.....Oct. 29 (F) *37

Prestressed
Bridge in Sicily is of lightweight precast prestressed concrete.....Dec. 17 *49
Costs more. Owne Williams..Sept. 24 12
Firewalls are precast, prestressed. Pacific Gas & Electric..Dec. 17 (F) *33
Hoboken pier may have a prestressed concrete deck as a result of bids.....July 23 26
Hydraulic jacks prestress lengths of tunnel linings, Germany. Curzon Dobell.....Dec. 10 66
International experts report on prestress fire resistance of beams.....Nov. 19 63
Los Angeles prestressed concrete footbridge tested.....July 16 *115
Lower Tampa Bay bridge—prestress beat alternates. M. N. Quade.....Nov. 12 12
94-ft concrete roof beams set record for prestressed members cast in place, St. Louis gymnasium.....Nov. 19 *29
Prestressing in England. D. H. Lee.....July 9 6
3-story Baltimore office is tallest precast, prestressed building in U. S. F. W. Wilcox.....Nov. 26 (F) *31
Wrap-around cables prestress long continuous-girder bridge. Leonhardt & Dobell.....Sept. 3 (F) *43
Pumping concrete 17 stories in bolted steel hospital, Minneapolis.....Aug. 27 (F) *43

Reinforcing
Concrete building houses newspaper and hotel, Sao Paulo, Brazil. Nov. 26 *53
Form shoring.....Oct. 22 e76
Research center dedicated at Boettcher, Colo.....Sept. 10 *87
Shipwreck provides concrete test.....Nov. 12 27

Slabs
Canada builds three-story lift slab building at Regina.....Nov. 12 63
Lift-slab method used for six-story nurses' residence at Winnipeg, Man.....Nov. 12 *25
Tank roof failure probed, Everett, Mass.....Oct. 15 *25
Tests show way to thinner slabs on railroad bridges.....Dec. 10 (F) *83
Warwick, R. I. school lift-slab job delayed by double trouble.....Nov. 19 26
Switzerland—Grand Dixence Dam needs special concrete storing and 11-mile long ropeways to bring cement. W. G. Bowman.....Dec. 3 (F) *32
Vacuum concrete process applied to barrel vault roof slabs and walls, Bogota, Colombia.....Nov. 19 (F) *61

Construction

Africa—competition for U. S. builders and engineers (map).....July 30 (F) *75
American Telephone & Telegraph keeps building at a furious rate.....Aug. 27 72
Appropriations to cover construction in fiscal 1954 (table).....Aug. 6 22
Army, Navy and Air Force projects.....July 16 24
Atlantic Islands: home for the military (map).....July 30 *55
Bureau of Labor and the Department of Commerce estimate construction spending for 1953.....Aug. 20 26
Burma plans huge development of its industry and resources.....Oct. 15 45
Canada—private work climbs, but public contracts are off.....Sept. 3 *98
Civil works spending ordered cut-back by the Army.....Sept. 10 22
Congress expected to ease up on tight construction policy.....Dec. 17 (F) 21
Congressional economy ranks hold on construction funds.....July 30 (F) 20
Contractors find bidding getting rougher (chart) (F).....July 2 *21
Contractor new business in 1952—heavy construction and building construction (charts & table).July 2 (F) *70
Costs
Construction cost trends (chart).....Oct. 8 *90
Contract unit price index—Western States 1946-1953 (table).....Oct. 8 97
Cost trends around the world (charts).....Oct. 8 117
ENR construction and building cost indexes (chart).....Oct. 8 *81
ENR cost indexes 1926-1953 (table).....Oct. 8 92
Increase in costs this year (chart).....Dec. 10 144
Marshall forecasts 1954.....Dec. 24 59
1954 outlook for construction costs (chart).....Oct. 8 (F) *80
Petit chart shows rise in costs should slow down.....Dec. 17 *68
Petit theory: costs won't rise so fast in second half (chart).....July 23 *80
Council of Economic Advisers to be headed by Arthur F. Burns.....July 23 (F) *60
ENR's backlog levels off for the first time since 1948 (chart).....Oct. 29 96
ENR's backlog of proposed work January-July '53 (table).....Aug. 27 72
ENR survey of contractor capacity (charts).....Aug. 20 (F) *21
Europe—opportunities for U. S. engineers and contractors (map).....July 30 (F) *58
Export of U. S. construction.....July 30 e156
Far East—opportunity for U. S. engineers and construction men (map).....July 30 (F) *99
Fast amortization can no longer be obtained in the construction industry.....Sept. 10 158
Fatal accidents surveyed.....July 30 22
Federal construction agencies are regrouping.....Sept. 3 (F) 21
Federal construction spending to be slowed, cut more in '55, Budget Bureau.....Aug. 20 27
Federal spending outlook: down but still good.....July 2 23
Heavy construction in 1953 by regions (table).....Nov. 19 143
Industrial finance companies help the construction industry.....Oct. 29 97
It's good weather for borrowing. J. P. Chamberlain.....Sept. 24 21
McGraw-Hill spot survey finds 1954 capital spending to stay high.....Nov. 12 92
Middle East—opportunity for U. S. engineers and construction men (map).....July 30 (F) *85
Military construction awards go up as budget reviews near completion.....July 2 22
Military installation control spelled out by Defense chief. F. G. Floete.....Aug. 27 *21
Municipal money becomes easier to borrow(chart).....July 23 78
1953-54 preliminary forecast by ENR of heavy construction (table).....Oct. 1 21
ODM's new rules won't help construction.....Nov. 19 143
Outlook is bright.....Oct. 15 e80
Performance standards. R. R. Britton.....Dec. 3 10
Problem of too-costly construction.....Dec. 24 e80
Projects eligible for congressional authorization (tables).....Oct. 8 71
Second halt prospects.....July 6 e104
Social consideration also.....July 16 e180
South and Central America: old and big market (map).....July 30 (F) *33
Tax-aided plant to reach high peak in 1953.....Oct. 15 60
U. S. Commerce and Labor Depts. give outlook for construction put in place '53 and '54 (table).....Nov. 26 61
U. S. construction overseas.....July 30 (F) *28 107
U. S. firms on foreign construction (list).....July 30 30

Winter
Use of salt in clay core aids winter dam building. J. B. Hays.....Aug. 6 *41

Construction Equipment

Air-hammer guard.....Nov. 19 *80
Axe, air-driven, cuts pile-pointing time.....Nov. 19 *75
Berm shaper designed for canal work. J. E. Ricker.....Nov. 19 *75
Brush rake to clear right of way.....Aug. 20 *113
Bulldozer operator killed by buried stone.....Sept. 3 27
Bulldozer rampage damages not to be paid by construction company says court.....Dec. 3 26
Bulldozer swims instead of crawling, Fort Randall Dam.....Sept. 3 *25
Chute lays dust nuisance.....Sept. 10 *76
Conveyors carry aggregates through cooling chamber for Vaitarna Dam, India. Bertsch & Silvera. Sept. 3 (F) *37
Conveyor for coal is lower part of double-decked bridge, railway on top.....Nov. 5 (F) *63
Derrick built in Canada.....Oct. 22 *35
Drill guard reduces flying chips.Nov. 19 *80
Earth fill placing for Palisade Dam in Idaho.....Dec. 31 (F) *28
Earthmover, towed by two tractors, erects levees in single pass to establish rice paddies. T. E. Riley.....Sept. 3 (F) *34
Exports of materials and machines for 1952 (charts).....July 30 (F) *127
Fire tube water tank for winter concreting used on truck.....July 23 *43
Gravity ore loading system for Ontario.....Nov. 12 23
Highway machines revamped at Fresno by shop crew to case work.....Sept. 17 (F) *49
Hopper, bottomless, spreads asphaltic paving on slopes of Green Verdugo Reservoir, Calif.....Aug. 13 *25
Hydraulic excavator with beam attachment made a screeding machine for street paving.....Sept. 10 *76
Jacks, hydraulic, prestress lengths of tunnel linings, Germany. Curzon Dobell.....Dec. 10 66
Japan to have earth-moving equipment plant.....Sept. 24 51
Jet trencher gets pipe under the bottom mud when laying natural gas line for New York City. R. H. Dodds.....Aug. 13 (F) *37
Lifting beams speed tilt-up of walls for school.....July 16 *27
Load calibrating devices of high capacity developed by National Bureau of Standards.....Sept. 10 93
Mining machine bores sewer tunnel.....July 30 *22

New method for removal of earth berm July 16 *59
Palisades Dam tunnel-lining sections hauled to place by special unit Nov. 26 *41
Pile driving of sand columns not new in U. S. R. E. Talmadge.....Sept. 17 12
Powder actuated tools winning fight for acceptance .....Dec. 3 (F) *29
Price index (tables).....Oct. 143
Rake-screen trailer cleans beach Oct. 22 *37
Rental rates (table).....Oct. 8 143
Scaffold cage hung over side of bridge used to paint bridges, Idaho..July 23 *43
Scaffold fails at Golden Gate Bridge, two workmen die.....Nov. 12 23
Modifications of traveling scaffolds to follow Golden Gate Bridge accident Nov. 26 *23
Scraper feeds dirt into trench to pad pipeline in Texas.....July 16 *61
Shoring frame aids bridge underpinning, Carlsbad, Calif.....Nov. 19 *28
Spool mover .....Nov. 19 *76
Valve of Afghanistan dam.....Sept. 17 *58
Vibrating spud compacts sand for paper mill foundations. A. Mystkowski .....July 2 (F) *35
Wheelbarrow remodeled to increase load. R. A. Phelps.....Oct. 8 *240
World Bank creates market for U. S. construction goods.....Sept. 17 58

Construction Materials

Asbestos reclaimed from pipe insulation .....Sept. 10 105
Cleveland antitrust case ended by consent decree .....Oct. 15 61
Corrosion-resistant materials used in electroplating plant.....Sept. 17 *39
Exports of materials and machines for 1952 (charts) .....July 30 (F) *127
Federal Construction Council continues research into building materials use July 23 27
Glass—blast effects on glazing materials studied .....Oct. 8 253
Insulation block of cellular-glass encloses freezer room in ice cream plant July 9 *43
Insulation board manufacturers to treat board with flame-resistant coating .....July 2 23
Materials and labor prices.....July 9 65
Aug. 6—58; Sept. 10—145; Oct. 8 305
Nov. 5—75; Dec. 10 132
Pennsylvania puts sales tax on building materials .....Sept. 10 22
Plastic skin sprayed on roof of Sherry-Netherland Hotel, N. Y. C.....July 23 27
Plywood vs tornadoes. N. S. Perkins July 23 12
Porcelain enamel discussed by the Building Research Advisory Board Nov. 19 30
Prices in national currency
Africa (tables) .....July 30 *75
Europe (table) .....July 30 56
Far East (table).....July 30 99
Middle East (table).....July 30 85
South and Central America (table) July 30 33
Prices in 20 cities (tables).....Oct. 8 123
Profit margins: still on the downgrade 1952-53 (table) .....Aug. 20 153
Construction Materials see also Aluminum, Cement, Concrete, Steel, etc.

Contractors

Building anything—a big contractor uses teamwork to prepare its offer Oct. 8 (F) *165
Building skyscrapers—one man estimates, lets contracts, schedules and pushes job out.....Oct. 8 (F) *159
Colorado Supreme Court aids contractors in obtaining trucking certificates Dec. 31 26
Contractor new business in 1952—heavy construction and building construction (charts & tables).....July 2 (F) *70
Defense Dept. tightens control on advance payments .....Oct. 15 23
Denver to assess builders who exceed time schedules .....Oct. 8 221
ENR survey of contractor capacity (charts) Aug. 20 (F) *21 (tables) Dec. 3 86

Contracts

ASCE-AGC finish work on new contract form .....Sept. 17 23
Bids
Bidders on Pennsylvania flood dam go below engineers' estimate Aug. 20 154
Contractors find bidding getting rougher (chart) (F).....July 2 *21
New AIA-AGC provision covers bidding mistakes .....Oct. 1 22
Norfolk, Va., to withhold appropriations for jobs until after bidding Dec. 24 26
Federal construction contracts six months of 1953 and 1952 (table) July 9 85
Conveyor belt for passengers at Jersey City tunnel .....Oct. 15 23

Corrosion

National Bureau of Standards speeds soil corrosion tests.....Nov. 5 40
NBS studies corrosion of buried irons and steels .....Oct. 8 247
Council of Economic Advisers
Members of the Council.....Dec. 10 144

D

Dams

Afghanistan
Kajaki Dam rotovalve.....Sept. 17 *58
Austria
Limberg Dam to be highest hydro project .....Oct. 8 (F) *226
Cabinet Gorge Dam, Idaho
Fourth generator added to power house .....Sept. 17 *25
Canada
Bersimis River power project fill found by air photos.....Oct. 29 *47
Canyon Ferry Dam, Mont.
Main block topped off.....Aug. 27 26
Cherry Valley Dam, Calif.
Earthwork (unit prices).....Oct. 8 197
Low bidder on water supply project Aug. 27 26
Conemaugh Dam, Pa.
Dedicated—flood control milestone Sept. 24 22
Dalles Dam, Ore.
Construction of dam.....Oct. 22 (F) *29
Detroit Dam, Ore.
Reservoir level being lowered to clean up debris.....Nov. 26 26
Egypt
World's largest hydro and irrigation dam planned .....Nov. 19 72
Falcon Dam
Dedication of dam built by Mexico and U. S.....Sept. 17 *40
First Fork Dam, Pa.
Dam and reservoir (unit prices) Sept. 3 96
First Fork Sinnemahoning Creek Dam, Pa. Bidders go below engineers' estimates .....Aug. 20 154
Fish study to be made to get them past dams .....Sept. 10 90
Folsom Dam, Calif.
Concrete moves again.....Aug. 27 *25
Construction work.....July 23 (F) *39
Flooded area dewatered .....Nov. 5 *25
Fort Patrick Henry Dam, Tenn.
Closure methods modified....Oct. 15 *26
Ft. Peck Dam, Mont.
Few dams have been so much maligned in an economic sense Nov. 26 e84
Fort Randall Dam, S. D.
Bulldozer swims instead of crawling Sept. 3 *25
Earthwork contract awarded..July 2 23
France
Rance River dam to harness tidal flow .....Dec. 31 41
Tignes Dam dedicated.....Aug. 27 59
Gavins Point Dam, S. D.
Excavation for powerhouse to be covered to permit winter work..Oct. 29 *27
Grand Coulee
Slide condition probed.....Aug. 6 26
Gut Dam, St Lawrence River
Might be the cause of international trouble .....July 2 e98
Hells Canyon, Idaho
FPC gets Interior Department's report on dams.....July 2 24
FPC hearing witness urges run-of-river plants instead of large reservoirs .....Dec. 31 *24
Hearings on power development July 16 21
Idaho Power claims cheaper power for 3-dam plan .....Aug. 6 23
Indepedent survey favors federal plan .....July 23 (F) *21
Three-dam plan supported by former Army Engineers deputy chief July 30 21
Hoover Dam (Boulder)
Silt carried 115 miles in Lake Mead Dec. 17 32
Slab is anchored to wall of canyon Dec. 17 *25
Horse Mesa Dam, Ariz.
Packer developed for sealing drill holes .....Oct. 8 *243
Houston, Tex.
Slab and buttress dam on soft foundation with patented diffuser spillway .....Aug. 20 (F) *41
Hungary
Tokay hydro, irrigation and navigation project is pushed.....Nov. 19 *64
Hungry Horse Dam
Storage at dam to be tapped to aid aluminum companies .....Nov. 26 24
Tourist attraction .....Nov. 5 *46
Idaho
Three proposed major dams planned by Army Engineers .....Dec. 3 24
India
Bhakra Dam excavation and powerhouse to start simultaneously Sept. 3 *59
Vaitarna Dam aggregates cooled on belts. Bertsch & Silvera..Sept. 3 (F) *37
Japan
UN-Japan agreement on Ogochi Dam July 9 54
Jemez Canyon Dam, N. M.
Rio Grande flood control project completed .....Oct. 8 *76
Kenney Dam, B. C.
Use of salt in clay core aids winter dam building. J. B. Hays...Aug. 6 *41
Lavon Dam, Tex.
Flood control and water supply project .....Nov. 12 24
Libby, Mont.
New site proposed .....Dec. 10 24
Liberty Dam, Md.
Water supply structure becomes East's first fly-ash concrete dam Sept. 17 (F) *35
McNary Dam, Ore.
Power due Dec. 1.....Aug. 27 26
Mebane Dam, N. C.
Earth dam (unit prices).....Oct. 8 199
Mississippi-Missouri-Ohio River dams cut drought losses.....Nov. 12 24
Monticello Dam, Calif.
Contract awarded .....Aug. 20 29
Work begins .....Oct. 8 75
New York State
Raquette River, N. Y. six dams Sept. 17 (F) *30
New Zealand
Maratai Dam finished .....Dec. 24 *44
Nimbus Dam, Calif.
Dam will serve as afterbay for regulation of water released from Folsom Dam .....Sept. 10 *24
Oakland Dam, Calif.
Traffic jam ended by network of passes .....July 2 *42
Palisades Dam, Idaho
Earthfill dam with special features Dec. 31 (F) *28
Tunnel-lining sections assembled by automatic welding ....Nov. 26 (F) *39
Paris—U. S. Engineers urged to present papers for 1955 congress on large dams .....Oct. 8 74
Philippines
Ambuklao Dam electrical equipment contracts awarded .....Sept. 10 70
Pine Flat Dam
Radioactive gages signal water content of snow packs as aid in runoff control .....Dec. 24 (F) *24
Porcupine Creek, Montana
Missouri River diversion accomplished better by dam than by pumping plant .....Nov. 26 21
Portugal
Salamonde Dam for hydroelectric development .....Aug. 20 73
Priest River Dam
No squabble. E. C. Itschner...Aug. 6 13
Puerto Rico
Yauco Dam to be completed in 1955 Oct. 22 *40
Rockfill dams
Earthfill and rockfill dams. C. S. Opina .....Aug. 6 13
Rocky Reach Dam, Wash.
One local district and six power companies to survey prospective hydro, sites .....Dec. 17 26
Sanford Dam, Tex.
New lifeline for 12 thirsty cities July 16 (F) *43
Seepage through dam checked by injecting chrome-lignin .....Oct. 8 247
South Africa
Cape Town dam prestressed to build it higher .....Aug. 13 61
Stewart Mountain Dam, Ariz.
Grouting dam. T. M. Morong..July 16 10
Sutherland Dam, Calif.
Nears completion after 25-year construction lapse .....Nov. 12 (F) *48
Switzerland
Grande Dixence Dam to be the world's tallest. W. G. Bowman Dec. 3 (F) *32
Tacoma, Wash.
Power dams cleared by second court decision .....Nov. 26 46
Trenton Dam, Neb.
Dedication .....Oct. 8 78
Turkey
Seyhan Dam bidders.....July 9 27
Tuscaloosa, Ala.
Earth dam for water supply (unit prices) .....Aug. 27 74
Waco, Tex.
Teamwork shows the way as city and authority plan dam.....Nov. 19 54
Webster Dam, Kansas
Bid on construction.....Nov. 26 24

Defense

Assistant Secretary of Defense for Properties & Installations.....July 9 *22
July 30 *22
Construction's mission in civil defense Oct. 22 (F) *24
Defense for Properties and Installation—Admiral Jelley named director of construction .....Sept. 24 21
Defense procurement guide will assist construction material, equipment firms .....Dec. 24 25
H-bomb threat points up need for protective construction .....Oct. 15 21

* Illustrated; e, editorials; (F) Articles over a page

ODM should stop helping plants to bunch up ....Dec. 24 59
Properties and Installation Office to use consultants for special missions ....Dec. 3 21
Tax write-off granted to 177 firms ....July 30 27
Defense Materials System
New law gives statutory authority to system ....July 9 23
Defense Production Act
Priorities, allocations and capacity expansion provisions extended ....July 9 23

Dikes
Netherlands repair defenses against the sea ....Oct. 15 (F) *34
Reynolds Metals to put up dikes near mill at Toutdale, Ore. ....Nov. 26 26
Suspension bridge cables protected by man-made islands, Chesapeake Bay ....Dec. 24 (F) *36
Venezuela—dike to be constructed to make Lake Maracaibo navigable ....Nov. 5 68

Drainage
High-speed channels spell low-cost airfield drainage, Florida. Ensign Howard Jacoby ....Nov. 5 (F) *41

Dredges and Dredging
Toledo sand dredgers lose round on water front ....Sept. 17 50
U. S. Army Engineers to build dredging disposal area ....Aug. 6 25
Drills and drilling
New Zealand drilling for steam to operate turbo-generators for production of electrical energy ....Sept. 10 70
Packer developed for sealing drill holes, Horse Mesa Dam, Ariz. ....Oct. 8 *243
Drydocks
New York City to reconstruct wooden drydock at Brooklyn Navy Yard ....Aug. 13 24
Du Pont Co. and its engineering department (chart) ....Aug. 6 44
Du Pont construction force—G. M. Reed, Chief engineer. J. P. Chamberlain ....Aug. 6 (F) *42
Dust
Chute lays dust nuisance ....Sept. 10 *76

E

Earthquakes
Father Lynch measures earth's tremors ....Aug. 27 (F) *52
Greece—Ionian Sea Islands suffer extensive destruction from earthquakes ....Aug. 27 *57
Oakland closes schools said to be earthquake hazards ....Oct. 8 214
Electric transmission
Italy spanning Messina Strait ....Oct. 8 235
Electronic brain to aid flood-control operations ....Dec. 17 25

Engineers
Bidding for engineering services ....Nov. 19 e167
California changes law for engineers ....July 9 23
Collective bargaining for engineers ....Dec. 3 e112
Construction industry leaders honored by Michigan's College of Engineering ....Nov. 5 27
Consultants' numbers rise (tables) ....Sept. 10 21
Engineer societies pushed for space in N. Y. C. consider other cities. Sept. 3 23
Engineering societies headquarters—bids made by Chicago ....Nov. 26 26
Headquarters for engineers ....Sept. 10 e184
Florida to hold training program for highway engineers ....July 23 27
Incentive system for engineers. J. A. Roy ....July 2 8
Java's dearth of engineers endangers public health ....Dec. 3 54
Jobs for engineers ....Oct. 15 e80
More engineers for research ....Oct. 22 376
Sanitary engineering neglected. G. H. Dunstan ....July 9 10
Sanitary engineers—new society proposed ....Aug. 6—25; Aug. 13 e120
Shortage of highway engineers. King Royer ....July 23 12
Survey of manpower being made. July 9 23
Two women hydraulic engineers. July 16 *78
University of Michigan has variety of construction curricula ....Nov. 19 82
Wisconsin raises pay scale for engineers ....July 9 24
Frank Lloyd Wright comments on engineers ....Nov. 5 e128
Engineers Joint Council
Professional statesmanship needed ....Aug. 6 e104
Explosions
Cleveland street blast probed by engineers ....Sept. 24 *24
Export-Import Bank policy worries Latin America ....Aug. 20 73
Export-Import and World Bank surveyed by Senate group ....Oct. 29 68

F

Federation of Sewage & Industrial Wastes Assn. Meeting in Miami ....Oct. 22 *23

Fire Protection
Fire safety responsibility ....Oct. 15 e80
Ford simulates plant fire in tests using pitch vapor seal in roofing ....Nov. 5 24
International experts report on prestress fire resistance of concrete beams ....Nov. 19 62
New fire protection code governs electrical work ....Sept. 3 26
Plants can be safe. F. H. Gage. ....Oct. 22 13
Sprinkler costs being cut. A. D. Busch ....Dec. 24 10
Underwriters revise Fire Prevention Code ....Aug. 13 54

Fires
Fire in skyscraper frame leads to changes in Dallas building code ....July 16 26
General Motors plant at Livonia, Mich. destroyed by fire ....Aug. 20 *28
....Aug. 27 e96
General Motors Livonia, Mich. fire teaches many lessons ....Oct. 15 e80
General Motors plant at Livonia, Mich. report on fire ....Oct. 15 24
Losses by fires hit record in 1953 ....Sept. 24 74
Plants can be fire safe. F. H. Gage ....Oct. 22 13
Safety ideas to halt construction job fires ....July 9 40
Fish
Study to be made to get them past dams ....Sept. 10 90

Floods and Flood Protection
Africa—Shire River project ....Nov. 5 68
Connecticut River Valley flood control compact signed by four states ....Sept. 24 24
Electronic brain to aid flood-control operations ....Dec. 17 25
Flood control projects proposed (tables) ....Oct. 8 71
Flood-flow retardation ....Nov. 12 e120
Great Britain completes flood warning system ....Oct. 15 46
Kansas River Basin municipalities to attempt to mediate the conflict in flood-control proposals ....July 30 25
Kansas-River Valley cities seek flood control solution ....Sept. 17 25
Missouri-Souris diversion scheme in the Pick-Sloan plan to be revised (map) ....July 30 *24
Montana floods to be controlled by earthfill dam and diversion channel ....Sept. 10 26
Morganza floodway approaches (unit prices) ....July 23 74
Reservoir plan challenged for Kansas flood control ....Aug. 20 (F) *53
Reservoirs vs floodways ....Aug. 20 e180
Rio Grande projects ....Oct. 8 76
Susquehanna River, Pa. flood control dam started ....Oct. 8 75
Trinity River flood control bolstered ....Nov. 12 24
Upper Trinity River in Texas watershed flood retardation work (maps) ....Nov. 12 (F) *45
Willamette Basin project hit by economy drive ....July 23 25

Floors and Flooring
ASA publishes standards for heavy-duty flooring ....Nov. 5 70
Bogota automobile show room's long span honeycomb ceiling takes heavy reinforcing ....July 16 *86

Foundations
Carlsbad, Calif. bridge foundation lowered ten feet to provide greater channel depth-shoring frame aids ....Nov. 19 *28
Drilling and under-reaming refuse fill foundation for Los Angeles factory ....Sept. 17 *41
Floating foundation for earthquake-resistant tower in Albuquerque, N. M. ....Nov. 19 (F) *47
Internal vibration compacts sand for foundations of a paper mill. A. Myatkowski ....July 2 (F) *35
New York State Thruway bridge—foundations of hollow boxes precast ....July 9 (F) *33
"Semi-floating" piers, geared to tides, to support bascule bridge at Seattle ....Dec. 3 *23
Toronto subway builder underpins theater floors on grounds ....Dec. 17 (F) *37
Fountain in Norfolk park made of cobblestones ....Dec. 10 *55
Fuel
Jet fuel line laid across San Diego to Miramar Naval Air Station. ....Dec. 10 56

G

Garages
Chicago constructing underground garage ....Aug. 20 *64
Chicago parking garage to cantilever over street ....July 16 25
Chicago—underground parking garage ramps ....Dec. 24 *34
Cleveland studies proposed three-level $3 million parking garage ....Aug. 6 51
Eau Clair, Wis. dedicates self-parking ramp garage ....Dec. 3 66
New York City gets garage with automatic parking ....Aug. 13 92
Pigeon Hole Parking garages now of precast concrete, formerly steel racks ....Oct. 8 *75
Report on parking solution: slow and not at all sure ....Dec. 10 (F) *21
Spokane, Wash. double parking elevator. W. J. Porter ....Nov. 5 13
Spokane, Wash. Pigeon Hole Parking bought by Texas group ....Nov. 26 63
Washington, D. C. Park-O-Mat claims success after 22 months in operation ....Nov. 26 47
Garages see also Street Traffic, (Parking)

Garbage and Refuse Disposal
Garbage composting tests ....Sept. 24 48
Garbage for hogs?—cook it ....July 16 (F) *62
Landfill
Leaching of sanitary landfill—not just ashes. B. B. Selph ....Sept. 24 12
Ramp sanitary landfill demonstrated in Missouri ....July 23 49
St Paul plans landfill—cooked garbage law blamed ....Sept. 17 53
Milwaukee to explain new garbage pick-up by movie ....Oct. 22 39
Gas company drops underground storage plan ....Sept. 10 27
General Motors issues journal for colleges ....July 16 89
Governors' Conference in Seattle. ....Aug. 13 26
Grade crossings
Spokane and railway collaborate, invent new pavement guard ....Oct. 1 *37
Grain elevators
Peruvian grain elevator ....Dec. 10 72

H

Hammond, Dean H P. dies; taught engineering ....Oct. 29 24
Harza, L. F. dies—consultant on hydro power plants ....Dec. 3 *25
Hatch, Everett H. dies; noted tunnel builder ....Dec. 24 22
Hays, James B. dies; foundation authority ....Oct. 29 24

Heating and Ventilating
Glass heating panels perform well in tests ....July 16 116
Heat pump used in 12-story tower earthquake resistant in Albuquerque, N. M. ....Nov. 19 (F) *47
Heating efficiency covered at ASHVE meeting ....July 16 115
Seattle, Wash. office building—hollow members double as heat ducts in steel-frame ....Oct. 29 *43

Highway Administration
Arkansas Highway Dept. investigation ends with one conviction ....Nov. 19 28
Delaware road bureau shifts personnel ....Aug. 20 106
Florida governor fires road board ....Dec. 17 22
Florida in turmoil over mass firings ....Dec. 24 25
Florida Turnpike Authority suspended ....Nov. 19 24
How to measure state interest in agricultural roads. G. A. Riedesel ....Sept. 24 (F) *31
Kansas Highway Dept. to use foreign engineers ....Sept. 17 68
West Virginia highway personnel problem critical ....Sept. 24 26

Highway Construction
AGC finds road contractors confused over toll highway specifications. R. H. Dodds ....Sept. 24 *22
Around-the-clock roadbuilding ....July 9 e112
Asphalt and soil-cement team for high-type air base roads, California ....Sept. 3 (F) *41
First national conference on local highway problems under ARBA auspices. J. R. Carr ....Oct. 1 22

* Illustrated; e, editorials; (F) Articles over a page

Garden State Parkway—better methods reduce costs on highway landscape work ....Oct. 8 (F) *174
Minnesota investigates cement deficiency on highway project...Dec. 17 24
New York State Thruway
Thruway cuts its swath across the state ....July 15 (F) *51
Under construction the whole way (map) ....July 2 (F) *38
Price index—composite standard mile (table) ....Oct. 8 111
Slippery when wet—polished aggregates. C. E. Larson....Oct. 29 (F) *45

Highway Design

Load limits
West Coast truckers end "park down" strike over weight limit enforcement ....July 16 *22
New Jersey traffic circle converted to a signalized intersection...Aug. 6 (F) *34
Rochester traffic exchange considered Sept. 10 26
Wire mesh bituminous pavement tested in District of Columbia....Nov. 5 *27
Wire mesh bituminous pavement tested in Michigan. L. P. Scott....Dec. 24 10

Highway Economics

AASHO discusses how to raise construction funds. J. R. Carr...Nov. 19 (F) *25
California authorizes record road budget ....Dec. 3 23
Channeling of federal highway aid into interstate systems is urged..July 9 22
Competition gets tougher for highway contractors ....Aug. 20 153
Competition, more materials keep highway costs stable (chart)....Nov. 5 104
Federal highway aid continues to hold congressional support....Nov. 26 21
Gasoline
Virginia recommends boost in taxes Sept. 3 24
General Motors contest papers. N. R. Drulard July 30-14; F. B. Robb Sept. 17 12
Highway price index and average prices, Calif. 1940-1953 (table) Oct. 8 169
How to measure state interest in agricultural roads. G. A. Riedesel ....Sept. 24 (F) *31
Illinois gives out-of-state bidders a break ....July 9 22
Illinois plans 1954 road work...Dec. 24 23
Long range highway planning..Aug. 13 e120
Maine's highway program has money troubles ....Aug. 20 29
Ohio highway program gets big boost under new revenue measures..July 23 23
Realistic highway planning....Dec. 3 e112
State highway programs—correction. W. J. Crouse....Sept. 3 10
U. S. Chamber of Commerce conference on highway financing....Dec. 17 27
Users are financing highway expansion (chart) ....Sept. 3 99
Washington, D. C. road program Dec. 17 27
Highway equipment
Wisconsin road plans....Dec. 10 27

Highway Maintenance

Glen Cove Road repaving speeded by night work ....July 2 (F) *30
Glenwood Springs, Colo. removes snow by sprinkler truck with hot water Dec. 31 *26
Highway machines revamped at Fresno by shop crew to ease work Sept. 17 (F) *49
Maleic hydrazide applied to grass areas reduces highway maintenance costs Aug. 20 (F) *114
New method for removal of earth berm July 16 *59

Highway Marking

Connecticut Highway Dept. mixes paint with shop-made shaker....Dec. 24 *32
Milwaukee tries permanent pavement markers ....Dec. 3 64
Tulsa donates test street for choosing traffic paint ....Sept. 3 56

Highway Research

District of Columbia tests wire mesh bituminous pavement ....Nov. 5 *27
Idaho pavement tests to be shut down Dec. 24 *49
Idaho test road shows some failures July 23 26
Michigan tests wire mesh bituminous pavement. L. P. Scott....Dec. 24 10
Minnesota to conduct highway study program to determine needs and costs Sept. 10 26
Oklahoma to build test road comparing asphaltic concrete and Portland cement ....Sept. 17 24
Oklahoma to construct four miles of divided highway to compare pavements ....Dec. 10 *84
Road deflection under load measured by portable device ....Oct. 1 *29
Tennessee highway studies to determine standards for asphalt and concrete pavements ....Sept. 10 90

Highway Safety

California seeks safe backing up Aug. 13 23
Labor Day weekend....Aug. 20 e180
National Safety Council says that road construction safety should be enforced ....Oct. 29 27
Safer highways. G. R. Wadleigh Oct. 29 10
Slippery when wet—polished aggregates. C. E. Larson....Oct. 29 (F) *45

Highway Signs

Colorado highway signs destroyed by juvenile vandalism ....Dec. 24 26
Electronic sign warns motorists on Pennsylvania Turnpike ....Dec. 31 *23
Red as a background for stop signs Sept. 10 26
Virginia switching from metal to plastic signs ....Dec. 3 27

Highway Traffic

Dayton makes traffic safer with new traffic engineering department Oct. 29 (F) *54
New Jersey traffic circle converted to a signalized intersection....Aug. 6 (F) *34
San Francisco's traffic problem made more complex by opening of Bayshore Freeway ....Oct. 29 *25

Highways

Alaska Road Commission to survey three routes ....Sept. 24 24
Arabian countries may be linked by Mediterranean road system...Sept. 3 59
Baltimore County Beltway to start soon July 30 27
Baltimore planning two underwater tubes as a bypass....Aug. 13 *24
Billings, Mont. logging road (unit prices) ....Oct. 8 201
Boston to New York State turnpike route selected ....Aug. 13 25
British Columbia forms Toll Highways and Bridges Authority....Oct. 29 30
California highway (unit prices) July 23 74
Caribbean highway circuit....Aug. 27 59
Causeway joining South Padre Island to mainland at Port Isabel, Tex. to be completed ....July 2 44
Charleston-Princeton Highway
Concrete wins over asphalt...Oct. 15 22
Former W. Va. governor takes post Dec. 24 23
Three states join in traffic survey Nov. 26 23
Chicago expressway ....Aug. 6 *50
Chicago-Florida toll road
Georgia considers bill to support turnpike ....Dec. 3 23
Chicago-Gulf of Mexico Turnpike
Five-state commission announces plans ....Oct. 8 73
Cincinnati to Conneaut superhighway proposed ....Aug. 13 23
Colombia clamps down on construction Sept. 10 24
Dallas-Fort Worth toll road
Authority to seek validation of revenue bonds ....Oct. 8 74
Road study ....Dec. 24 26
Dallas road project 75%....Aug. 20 *60
Delaware's State Highway Commission approves two interchanges...Aug. 27 26
Detroit-Chicago toll road held practical Nov. 12 25
Detroit 14-bridge interchange used by rapid transit trains....Nov. 19 *53
El Salvador proposes highway to be built from Honduras to El Salvador Dec. 17 50
Federal highway hearings concluded July 23 24
Florida changes asphalt specifications Oct. 15 23
Florida Turnpike Authority
103 miles of turnpike surveyed Oct. 22 23
Suspended ....Nov. 19 24
Fog on superhighways....Nov. 12 e120
Garden State Parkway
Better methods reduce costs on landscape work ....Oct. 8 (F) 174
New Jersey to issue bonds...Sept. 17 26
Glen Cove Road repaving speeded by night work ....July 2 (F) *30
Great Britain launches highway improvements ....Nov. 12 63
Harrisburg highway speed increased Dec. 24 26
Hawaii—expressway work underway Sept 17 *41
Hawaii highway uses old rail route Oct. 8 (F) *217
Honolulu to build four-lane highway which includes three tunnels Aug. 6 26
Illinois creates state toll highway commission ....July 9 24
Illinois tests roadbuilding policies Dec. 10 30
Illinois Toll Road
Commission named ....Oct. 15 22
Indiana Toll Road
Bond issue....Dec. 17 *67; Dec. 24 57
Final route selection made...July 9 22
Indiana Turnpike
Plans for the turnpike....Oct. 29 23
Inter-American highway
Highway to be complete in two years July 9 53
Kansas City to Oklahoma toll road to be studied ....Aug. 6 23
Little Rock officials hear highway construction plan ....Oct. 15 44
Louisville-Elizabethtown, Ky.
Toll road must wait for court ruling Oct. 29 23
Turnpike allowed ....Dec. 31 22
Louisville, Ky. highway widening (unit prices) ....Dec. 31 53
Lynn, Mass. gets new parkway Sept. 24 47
Malaya announces 10 year plan for roads and bridges....Nov. 12 63
Maryland road resurfacing (unit prices) ....Oct. 8 199
Massachusetts steps up road building (map) ....July 16 *26
Massachusetts toll superhighway projected ....Sept. 10 26
Miami to Ft Pierce toll highway to be studied ....July 23 25
Michigan Authority to study toll highways ....Aug. 20 29
Michigan highway grading, draining and surfacing (unit prices)..Sept. 17 86
Michigan highway surfacing (unit prices) ....Oct. 22 50
Milwaukee Expressway
Commission created ....Dec. 31 26
Minnesota firm must make good on defective road job....Dec. 31 23
Minnesota investigates cement deficiency on highway project....Dec. 17 24
Montana and Idaho road building spurred by beetles....Aug. 20 29
New England shoreline expressway proposed ....Nov. 5 24
New Jersey Turnpike
Bids asked for Newark Bay bridge to carry highway extension (map) Oct. 29 *23
Extension to be built between Holland Tunnel and turnpike interchange at Newark Airport ....Aug. 27 72
Traffic sets records in 1953...Aug. 13 22
Way cleared for link with Pennsylvania Turnpike ....Dec. 17 25
New York State Thruway
ASCE hear about project....Oct. 29 21
Bridge foundations of hollow boxes precast ....July 9 (F) *33
Concrete caissons towed to bridge site ....Oct. 22 *22
One continuous job of construction under way for 427 miles (map) July 2 (F) *38
Thruway cuts its swath across New York State....July 16 (F) *51
Toll equipment cross-checks operation (map)....Dec. 10 (F) *37 e172
New York to Cape Cod expressway to be studied ....July 2 26
Nicaragua gets new loans for road program ....Sept. 24 *50
North Carolina's primary road problem Dec. 31 26
Ohio bridge and highway (unit prices) July 30 125
Ohio prepares road classification Nov. 12 27
Ohio Turnpike
Construction costs ....Dec. 31 23
Contracts now total $112 million Oct. 1 25
Fuzzy thinking? V. N. Holderman Aug. 13 10
Legal troubles mount....Sept. 3 25
Oklahoma toll superhighways held up by referendum petitions....Sept. 17 25
Oregon logging road (unit prices) Aug. 27 74
Pakistan road plan....July 23 59
Palisades Interstate Parkway near halfway mark ....Dec. 24 25
Penn-Lincoln Parkway West dedicated Nov. 12 54
Pennsylvania Commission to build highway toll tunnels....Aug. 6 23
Pennsylvania vetoes highway building restriction ....Sept. 17 24
Pennsylvania Turnpike
Anthracite extension to be built Nov. 5 25
Broadcasts to promote safer driving July 30 25
Electronic sign warns motorists Dec. 31 *23
Extension paving operations started Sept. 10 *26
Extension to run northward..Aug. 13 23
Extension to Youngstown, Ohio, pushed ....Sept. 3 24
Way cleared for link with New Jersey Turnpike ....Dec. 17 25
Peruvian highway and colonization venture ....Dec. 31 41
Richmond-Petersburg toll road
Authority created ....Sept. 3 24
Commission endorses plan....Aug. 6 24
Traffic survey on toll road...July 30 22
Richmond, Va. road program...July 9 50
San Diego-Imperial Valley, Calif., highway proposed ....Sept. 10 26

* Illustrated; e, editorials; (F) Articles over a page

San Francisco Bayshore Freeway ... Dec. 3 *45
San Francisco Freeway points a lesson ... Nov. 5 e128
Texas Belt Line Road (unit prices) ... Dec. 31 53
Texas highway construction (unit prices) ... Oct. 29 88
Toll roads
Road contractors confused over toll highway specifications, R. H. Dodds ... Sept. 24 *23
Run through cities to serve as local arteries as well ... Sept. 17 e120
Toronto Expressway planned ... Oct. 29 58
Van Wyck Expressway is tied to interchange ... Dec. 24 *34
Virginia cool to link with West Virginia and North Carolina toll roads ... Aug. 27 24
Washington road study ... July 9 27
Waynesboro, Va. by-pass project approved ... July 9 50
Wisconsin Turnpike Commission names engineer to start toll road study ... Dec. 3 25
Wisconsin turnpike law ruled valid ... Nov. 5 25

Highways see also Pavements
Holland, Clifford M. bust unveiled ... Nov. 19 *27

Hoover Commission
Morrell named to Commission ... Oct. 22 *21
Lacey Murrow named to task forces ... Nov. 19 27
Water and power group ... Nov. 12 22

Housing
Administration's new housing policies being readied for action by Congress ... Dec. 10 24
Albuquerque in record boom with 1,500 homes in works ... Dec. 24 41
Austria to try steel and slag prefabricated houses ... Sept. 17 58
Berlin receives grant for new housing ... Sept. 24 51
Bristol, Va. receives fund for project ... July 16 73
California home designer collects on copyright settlements ... July 9 88
Chicago housing measures passed ... July 9 24
Albert Cole, Federal House & Home Finance Administrator listens to opinions on housing problems ... Aug. 20 *152
Congress giving full support to slum clearance and urban redevelopment ... July 2-26; Aug. 13 27
Cooperative housing financing committed ... Sept. 24 25
Design data for lightweight aggregate concretes readied ... Dec. 10 89
Fanny Mae: a headache for the White House ... Dec. 31 (F) 34
Federal Housing Administration
Outlines U. S. housing policy for 1954 ... Sept. 10 *23
Plans to improve house trade-in program ... Nov. 12 94
Requirements block fund appropriations ... Nov. 5 53
To take new look at modern design ... Nov. 19 27
Federal National Mortgage Assn.'s one for one plan won't ease mortgage market ... Aug. 13 92
Working on new mortgage plan ... July 9 87
Ford Motor Co. of Canada planning town at Oakville, Ont. ... July 9 49
Four-year housing courses introduced at two schools ... Nov. 19 86
France—Strasbourg housing project uses prefab elements ... Sept. 3 (F) *60
German housing cost ratios (tables) ... Oct. 8 162
Germany produces more dwelling units since 1950 than any other country except U. S. ... Oct. 29 *64
Home shows become big business—Grover Godfrey showman ... Nov. 12 (F) 64
Home starts hurt by hard money in some areas ... Sept. 17 93
House-trailer laboratory for Central Valley home planning ... Aug. 20 116
July drop in house starts worries home builders, J. P. Chamberlain ... Aug. 20 151
Korea—Seoul mud tiled cottages ... Dec. 24 *35
Life insurance companies ask for flexible rates for FHA mortgages ... Aug. 20 153
Los Angeles ends housing fight, drops half planned units ... Aug. 20 68
Los Angeles housing wrangle settled ... July 23 47
Los Angeles slum program to be heard at conference ... Oct. 1 37
McGraw-Hill estimates that 1953 will be a good year for home builders ... Nov. 12 93
National Assn. of Home Builders discuss financing of home renovations as aid to slum clearance ... Sept. 17 26
National Housing Center to have Washington building ... Aug. 6 24
New housing law ... July 9 86
New Orleans slum program cited by NAHB ... Dec. 10 62
New York City
Baruch housing project dedicated ... Aug. 20 28
Public housing costs (chart & table) ... Oct. 8 147
Resolution offered Council hitting renting of rooms—not apartments ... Nov. 12 53
Tries private control of public housing projects ... Aug. 20 50
Two projects planned for Greenwich Village ... Sept. 10 61
New York State to discuss multiple housing code ... Dec. 3 65
North Dakota's state housing agencies upheld ... Aug. 6 25
Only one syndicate left to bid on housing bonds ... Sept. 3 100
"Operation Facelift" gets under way at Los Angeles ... Nov. 26 *62
PHA bonds go fast ... Oct. 1 45
Philadelphia Redevelopment Authority plans Eastwick residential-commercial undertaking ... Dec. 17 (F) 42
Pittsburgh's zoning regulations block housing, FHA man says ... July 9 45
Prefabricated housing to be studied ... Aug. 20 28
Prefabricator Gunnison will make buildings from steel ... Aug. 13 91
President's advisory committee on housing pleases building industry ... Dec. 24 57
President's new housing advisory group shows emphasis on financing problems ... Sept. 17 26
President's study group recommends liberalizing and broadening FHA terms ... Dec. 17 22
Public Housing Commissioner has limit of 20,000 units set for this year ... Aug. 13 27
Puerto Rico is wiping out slums ... Oct. 22 *40
Puerto Rico—slum clearance and redevelopment allocations approved ... Sept. 17 53
Sacramento cracks down on high-pressure salesmen who victimize home owners ... Oct. 15 61
St. Louis bond vote finances 12-story apartment buildings and plaza park ... Nov. 12 50
San Francisco allocates funds for three projects ... Sept. 10 61
San Francisco Redevelopment Agency's right to the use of eminent domain to be tested ... July 16 70
U. S. names areas for 20,000 homes ... Aug. 27 22
University of Illinois's Small Homes Council to present simplified panel system for house walls ... Dec. 3 26
Virginia upholds resale of condemned property to new private owners ... Dec. 10 28
Howard, Ernest E. dies, was ASCE president ... Aug. 27 *26

Hydraulics
How density currents affect water controllers, water users (charts) ... Dec. 17 (F) *31
Hydraulic specialists cite practical uses of science for everyday construction, A. J. Fox Jr. ... Sept. 10 25
Illinois State Water Survey's laboratory installs flume with glass walls to study channel hydraulics ... Dec. 24 (F) *48
Q equaled AV in 100 BC, P. Argyropoulos ... Dec. 31 12

Hydro Electric Power
Alaska-Blue Lake hydroelectric dam considered ... Dec. 3 27
Alaska-Eklutna tunnel holed through ... Nov. 12 24
American River water project planned ... Dec. 24 26
Australia's Snowy Mountains hydro scheme found to cost too much ... Dec. 3 89
Austria
Glockner-Kaprun to be the largest pumped storage project in the world ... Oct. 8 (F) *225
Limberg Dam to be highest hydro project ... Oct. 8 (F) *225
Belgian Congo's hydro potential world's biggest concentration ... Sept. 17 57
Bonneville Power Administration throws out low bids by foreign firms for transformers ... Aug. 27 23
Brazil receives loan from World Bank to hydro-electric company ... Sept. 10 69
British Columbia advances power projects ... July 9 25
British Columbia Electric Co. expanding ... Dec. 31 26
Cabinet Gorge Dam, Idaho, fourth generator added ... Sept. 17 *25
California Electric Power's Poole Plant penstock quickly repaired ... Sept. 17 *42
Canada
Aluminum Co.'s underground power plant completes tunnel ... Dec. 31 26
Aluminum Co.'s underground power house excavation ... Dec. 3 *44
Bersimis River power project fill found by air photos ... Oct. 29 *47
Niagara Falls—Sir Adam Beck station—on schedule ... Sept. 10 (F) *33
Pump-storage adds power for Alberta ... Sept. 10 27
Yukon-aluminum program plan to start with Taku River power plant ... Sept. 3 59
Clearwater River, Idaho, two-dam hydro project permit sought by Five Northwest power companies ... Dec. 31 24
Columbia River system offers more potential for inexpensive new power than any other U. S. watershed (map) ... Nov. 19 *35
Cost indexes for irrigation and hydropower construction (charts & table) ... Oct. 8 105
Cuban hydro planned ... Dec. 17 50
Egypt—French get Assuan power contracts ... Aug. 6 54
El Salvador electrification ... Dec. 17 52
El Salvador's Lempa River hydro is Central America's largest ... Dec. 3 *51
Federal power role to start decline, power policy statement affirms ... Aug. 27 *23
Gavins Point Dam powerhouse excavation to be covered to permit winter work ... Oct. 29 *27
Greece—Megdova River hydro bids asked ... Nov. 26 53
Guatemala hydro surveyed ... July 9 54
How will federal hydro policy affect Pacific Northwest? L. L. Wise ... Nov. 19 (F) *33
Hungary pushes Tokay hydro, irrigation and navigation project ... Nov. 19 *64
Idaho Power's application to build dams on Snake River reported to FPC ... July 2 24
Idaho Power's Hell Canyon issue at FPC hearing ... Dec. 31 24
India to start Bhakra Dam excavation and power-house construction at same time ... Sept. 3 *59
Israel canal from Jordan River to power plant on Lake Hulch opposed by Syria ... Oct. 29 71
Japan—hydro electric power projects boom ... Aug. 13 *80
Looking ahead in power ... Sept. 3 e128
Mexico to study Grijalva hydroelectric and irrigation project ... Aug. 20 81
New Zealand's Waikato River hydro plant progress ... Dec. 24 *44
Niagara Falls power bill passed by House ... July 16 21
Niagara Power ... July 30 e156
Niagara Power project halted for this session of Congress ... July 30 23
Orange Free State to have hydro ... Oct. 8 235
Pacific Gas & Electric Co.'s Bucks Creek plant turbine runner failure ... Oct. 1 *32
Pacific Northwest federal power projects (table) ... Nov. 19 36
Pacific Power & Light's Yale Project repair work on penstock tunnels ... July 16 *25
Raquette River, N. Y. six dams ... Sept. 17 (F) *30
Rocky Reach project, Wash.—one local district and six power companies to survey prospective hydro sites ... Dec. 17 26
St. Lawrence
License granted to N. Y. State Power Authority ... July 16 21
Power permit drawn up by FPC (map) ... July 23 *22
Plans go forward but court cases may delay financing ... Nov. 12 21
Power project correction ... Dec. 3 14
Project planning under way ... Aug. 13 *27
St Lawrence power ... July 23 e104
Seattle's City Light Co. would like to study dam site on Pend Oreille River ... Dec. 10 58
Switzerland-Grande Dixence Dam to be the tallest, W. G. Bowman (maps) ... Dec. 3 (F) *32
Tacoma, Wash. power dams cleared by second court decision ... Nov. 26 46
TVA claims victory in supplying power to Paducah, Ky. AEC ... Sept. 3 22
Turkey-Seyhan hydro project (unit prices) ... Nov. 19 *133
U. S. Bureau of Reclamation projects voted funds (table) ... Aug. 6 (F) 21
U. S. Army Engineers multipurpose projects (table) ... July 30 20
Upper Colorado River Storage project proponents hope for speedy action by Congress ... Dec. 24 22
Upper Klamath Basin, Ore., power potential probed ... Nov. 12 26
Venezuela approves Caroni River Falls hydro ... Nov. 12 63
Whatshan power plant at Needles, B. C. damaged by landslide due to leaks in penstock tunnel ... Nov. 12 60
Yugoslav hydro ... Sept. 17 62

I

Ice -blocks lower live main, Henrico County, Va. ... Sept. 24 47

• Illustrated; e, editorials; (F) Articles over a page

Indexes

Boeckh & Assoc. index of building costs (table) ..... Oct. 8 99
Building cost index round-up 1926-1953 (table) ..... Oct. 8 95
ENR construction and building cost indexes (charts & tables) ..... Oct. 8 80
Handy-Whitman index of public utility construction costs (table) ..... Oct. 8 103
Marshall & Stevens industrial equipment cost indexes 1929-1953 (table) Oct. 8 95
Refinery costs and Nelson refinery construction index (table) ..... Oct. 8 115
Industry—Southern Cities woo plants-subsidization vs. free land ..... Sept. 17 50
Insurance
Base rates on compensation insurance for construction Jan. 1, 1953 (table) Oct. 8 137
Inspection insurance. G. L. Blanchard Dec. 17 11
International Association of Hydraulic Research Meets with Hydraulics Div. of the ASCE. A. J. Fox Jr. ..... Sept. 10 25
International Commission on Large Dams
U. S. engineers urged to present papers for 1955 Paris congress on large dams Oct. 8 74

Irrigation

Africa—Shire River project ..... Nov. 5 68
California irrigation districts using unreinforced monolithic pipe. L. H. Kristof ..... Sept. 24 (F) *35
Columbia Basin Project
Bidding on construction work. Dec. 10 26
Egypt plans world's largest hydro and irrigation dam ..... Nov. 19 72
Idaho's Sloan plan for irrigating Mountain Home being investigated by Bureau of Reclamation ..... July 2 24
Iraq to carry out record irrigation and flood control program ..... Oct. 8 230
Lower cost irrigation canal linings. T. V. D. Woodford ..... Nov. 5 (F) *35
Missouri River diversion by pumping or by dam ..... Sept. 24 26
Palisades Dam, an earthfill dam, to conserve water for agricultural area Dec. 31 (F) *28
Sly Park irrigation project to be operated locally ..... July 23 27
Sumatra's rice production to be helped by two U. S. firms ..... Nov. 19 72
Irrigation see also Canals
Islands
Atlantic Islands: home for the military (map) ..... July 30 e55
Dauphin Is. near Mobile, Ala. to be vacationland ..... Sept. 17 54
Padre Island, Tex. to be boomed as a tourist area ..... July 2 44

J

Joints—Sewer outfall joint includes bolted cast-iron clamps against cast-iron seats embedded in concrete ..... Aug. 20 (F) *36

K

Korea

Construction planned for the next three years ..... Oct. 15 27
Seoul mud tile cottages ..... Dec. 24 *35
C. T. Wood to direct U. S. relief and reconstruction program for Korea Sept. 10 *25

L

Labor

AEC Hanford Works receives wage hike Nov. 26 28
AEC Joppa, Ill. ironworkers go to work Oct. 22 27
AEC Joppa, Ill. ironworkers strike Oct. 15 28
AEC Joppa, Ill. plant dismisses Ebasco Services as construction agent for electric plant ..... Aug. 13 (F) *21
AEC Joppa, Ill. plant working out job peace agreement ..... Aug. 20 32
AEC Louisville, Ky. truck drivers strike Sept. 10 29
AEC machinists return to work at Hanford ..... Oct. 22 27
AEC Oak Ridge carpenters walkout Sept. 10 29
AEC Oak Ridge plant workers want travel pay ..... Dec. 3 31
AEC Oak Ridge strikes taken over by mediators ..... Aug. 6 27
AEC Paducah area strikes ending July 2 28
AEC Paducah labor trouble—lesson for an industry. G. T. Orick ..... Nov. 19 (F) *21
AEC Paducah plant—ironworkers fight Dec. 17 *28
AEC Paducah plant closes as carpenters picket ..... Sept. 3 28
AFL convention acts to settle interunion fights ..... Sept. 24 27
AFL hod carriers, building and common laborers' union meet in Washington Oct. 22 27
AFL starts work on plan to end jurisdictional strikes ..... Oct. 1 27
Alabama closed shop law brings various reactions ..... Sept. 3—27; Sept. 10 29
Arizona painters union settles strike Dec. 31 27
Arkansas metal workers fringe benefits settled ..... Aug. 13 30
Average hourly earnings on contract construction (table) ..... Oct. 8 133
Bricklayers and tilesetters strike in Arizona ..... July 30 27
Building Trades Dept. of AFL showing signs of responsibility for union acts Oct. 1 e 64
Building trades harmony in the balance. Alan Adams ..... Dec. 31 27
California contractors give wage hike to laborers ..... July 23 28
California contractors fight strikes by $500-million project shutdown. July 16 31
California plumbers and pipefitters settle dispute with contractors. Aug. 13 30
California strike and shut down. July 9 28
California to clear up election day confusion ..... Aug. 13 29
Carpenters settle strikes in mountain area ..... July 16 28
Carpenters to stay in AFL ..... Aug. 20 31
Sept. 17 21
Chicago lathers sign 3-year no-pay-increase contract ..... Dec. 24 27
Chicago plasterers and lathers case dismissed ..... July 23 31
Cleveland unions looking for non-union members ..... Dec. 31 27
Closed shop pacts hit ..... Aug. 13 30
Collective bargaining issue surveyed by ASCE ..... Nov. 12 28
College-boy construction crew makes AFL unhappy ..... July 2 29
Compensation insurance rates boosted in Pennsylvania ..... Sept. 17 28
Construction industry resists Taft-Hartley Law—Supreme Court refuses case ..... Oct. 29 30
Construction wages per hour in national currency South and Central America (table) ..... July 30 33
County road construction disputes not handled by NLRB ..... Oct. 29 30
Courage can end racketeering ..... Nov. 5 e128
Court dismisses overtime suit against Navy ..... Sept. 3 28
Davis-Bacon Act—Labor Dept. progress report ..... Nov. 12 22
Delaware construction strike nears end July 9—28; July 23 28
Duluth firm seeks damages from carpenters union ..... Sept. 10 27
Durkin resigns as Sec. of Labor. Sept. 17 *21
Federal Mediation and Conciliation Service gets new director ..... July 16 38
Fringe benefits now established in the building industry ..... Nov. 26 28
Incentive plan catching on in Holland Sept. 17 27
Incentive plan for building labor needed to boost productivity ..... Sept. 17 27
Ironworkers union and millwrights end long fight over installation of conveyors ..... July 16 32
Joppa, Ill. steam plant shuts down in spite of AFL ..... Sept. 24 27
Kansas City strike enters tenth week July 9—28; July 23 31
Kansas City teamsters strike settled July 30 26
Lathers and plasterers cases to be heard by the Supreme Court. Dec. 3 22
Materials and labor prices ..... July 9 65
Aug. 6—58; Sept. 10—145; Oct. 8 305
Nov. 5—75; Dec. 10 132
National Joint Board for Settlement of Jurisdictional Disputes united again July 16 32
NLRB chairman named ..... July 23 28
NLRB head urges better public relations ..... Nov. 5 28
NLRB shapes up ..... Sept. 10 29
New York City—annuity plan established for electrical workers Dec. 10 *32
New York City carpenters set wage mark ..... July 9 (F) *21
New York City construction strike hinges on extension agreement. July 2 *28
New York City truck strike grows July 16—32; July 23—31; Aug. 13 30
Aug. 20—31; Sept. 3 27
New York City truck strike: the inside story. G. T. Orick ..... Aug. 27 (F) *28
New York City truckers back, gainless after nine-week strike ..... Sept. 10 27
New York contractors will keep plugging for overhaul of jobless pay law Dec. 17 28
New York labor leader charged with extortion ..... Nov. 12 28
New York State contractors' antitrust liability ..... Dec. 17 28
New York State investigator going over workmen's compensation ..... Dec. 24 58
New York state labor and management talk apprentice programs Nov. 5 28
Philadelphia carpenters strike ends July 2 29
Plumbers and gas fitters strike in Boston ..... Sept. 17 28
Plumbers and pipelayers war about application of Davis-Bacon Law to laying pipes in trenches ..... Oct. 15 27
Pre-glazing litigation ..... Oct. 1 24
Oct. 29 30
Regional pacts on rise in Washington, Oregon ..... Nov. 26 28
Richmond Standard Oil's phenol plant has jurisdictional dispute ..... Dec. 31 27
Rodgers named to NLRB ..... Sept. 3 28
St Louis lathing and plastering industry organized council to foster union-management peace ..... July 16 31
St Louis truck driver strike ended Aug. 13—30; Aug. 20 31
Scranton, Bldg. Trades Council battles with Associated Pennsylvania Contractors ..... Oct. 22 27
State law not applicable to Taft-Hartley law ..... Dec. 17 38
Supplying men is up to union, court says ..... July 9 28
Taft-Hartley labor law revision will be a bitter fight ..... Aug. 13 29
Taft-Hartley vs National Labor Relations Board cases ..... Oct. 1 24
Tennessee deducts AFL dues ..... Nov. 26 28
Texas painters come to terms in court Oct. 1 27
Texas tie-up ..... July 30 27
Unions hold line against state legal restrictions ..... July 23 31
Union labor rates reported by U. S. Bur. of Labor (tables) ..... Oct. 8 131
Unity plans offer hope of less jurisdictional strife ..... Sept. 17 (F) *21
Virginia asked to cut prisoner highway force ..... Dec. 24 27
Wage case end is in sight ..... July 16 32
Wages for construction in 20 cities (tables) ..... Oct. 8 125
Wage increases follow ENR forecast (table) ..... Aug. 20 35
Wage increases in construction 1952-1953 (table) ..... Sept. 10 29
Wage increases in 1953 (table) ..... July 9 31
Wage rates for building trades Sept. 1, 1953 (table) ..... Oct. 8 127
Wage rates for Canadian building trades July 1, '53 (tables) ..... Oct. 8 129
Wage rates in building trades, average union, by region, July 1, 1952 (table) Oct. 8 133
Wage rates—N. Y. City (table) ..... Oct. 8 129
Wage rates per hour in national currency—Africa (table) ..... July 30 75
Wage rates per hour in national currency—Europe (table) ..... July 30 56
Wage rates per hour in national currency—Far East (table) ..... July 30 99
Wage rates per hour in national currency—Middle East (table) ..... July 30 85
Wage rates up in New York City. Nov. 5 28
Wages in the construction industry Dec. 3 31
Wages set too high say AGC Carolinas branch ..... Sept. 3 27
Wages up 2.6% in building trades July 30 26

Lakes

Israel lake drained ..... Sept. 10 60
Rise in level of Lake Ontario may cause law suit ..... July 3 e96
Silt carried 115 miles in Lake Mead Dec. 17 32

Land Reclamation

Egyptian land reclamation ..... Aug. 27 59
Japan's reclamation project. Sept. 17 62
Manila, P. I. swamp reclamation July 23 59
Landfill see Garbage and refuse disposal
Landslides—Whatshan power plant at Needles, B. C. damaged by landslide due to leaks in penstock tunnel. Nov. 12 60
Levees—Earthmover, towed by two tractors, erects levees to establish rice paddies. T. E. Riley ..... Sept. 3 (F) *34

Legal Decisions

I. V. Werbin July ..... 16—94; July 23 66
Aug. 13—70; Aug. 20—88; Sept. 3 76
Oct. 8—302; Nov. 12—76; Dec. 10 96
Dec. 31 42
California tightens public works laws July 23 26

Lights and Lighting

Leased lighting ..... Nov. 5 103
Mennen plant in Morristown, N. J. features air conditioning and fluorescent lighting ..... July 2 *32
Mountaintop, Pa. factory illuminated by new-type incandescent lamps Nov. 26 *26
Locks
Green River, Kentucky, locks to be modernized ..... Sept. 10 23

* Illustrated; e, editorials; (F) Articles over a page

Intracoastal Waterway-improved lock gate design reduces filling turbulence ..... Nov. 26 (F) *42
Lumber—Research program launched to cut building costs and better products ..... Oct. 8 252
Lynch, Father Joseph—measures earth's tremors ..... Aug. 27 (F) *52

M

Malaya—World Bank to survey needs for development ..... Dec. 24 45
Marshall & Stevens—Industrial equipment cost indexes 1929-1953 (table) ..... Oct. 8 95
McGraw, Curtis W. dies; publishing company head ..... Sept. 17 *22
Greatness in leadership ..... Sept. 24 e96
McGraw, Donald C. elected president of the McGraw-Hill Publishing Co. ..... Sept. 24 *22

Meteorology

Precipitation and temperature in 20 cities (tables) July 16—41; Aug. 20—42; Sept. 24—42; Oct. 29—48; Nov. 26—36; Dec. 24 40
Scheduling construction by weather forecasts. W. R. Chalker (tables) ..... July 16 (F) *39
Survey report urges U. S. Weather Bureau drop tailored forecast for industry ..... Dec. 17 24
The weather—it's worth talking about ..... July 16 (F) *35

Mines

Gravity ore loading system for Ontario ..... Nov. 12 23
International Nickel starting plant at Copper Cliffs, Ont. ..... Sept. 24 74
Models—Small-scale models for power plants built by Henry Soper. Nov. 26 (F) *48
The Moles—1954 award winners named ..... Nov. 12 25
Moving—Railway bridge replaced by new one ..... July 9 *25
Municipal problems see Cities, Planning

N

National Council of State Boards—officers named ..... Nov. 12 25
National Reclamation Assn. meets. Oct. 22 22
National Safety Council
Road construction safety should be enforced ..... Oct. 29 27
National Science Foundation to present 700 fellowships ..... Nov. 19 82
National Society of Professional Engineers
Decision not to affiliate with Engineers Joint Council ..... Dec. 10 e172
Declines bid to join Engineers Joint Council ..... Dec. 3 25
Postpones action on affiliation with EJC ..... July 9 22
North American Conference on Apprenticeship ..... Aug. 20 32

O

Office of Defense Mobilization
Construction industry cannot obtain fast amortization any longer. Sept. 10 158
Construction of tax-aided plants to reach high peak in 1953. ..... Oct. 15 60
Tax privileges still offered to producers of 68 items ..... Dec. 10 146

Oil Refinery

Brazil shale oil plant ..... Nov. 5 68
British Columbia to construct refinery at Burnaby ..... Dec. 17 50
Kenya refinery planned ..... Oct. 29 71
Orchard, Bill, poet, peddler, sanitary engineer. A. J. Fox Jr. ..... Oct. 1 (F) *38

P

Painting

Connecticut Highway Dept. mixes paint with shop-made shaker ..... Dec. 24 *32
Engineering Paint Laboratory set up for paint and coatings ..... Nov. 5 40
Metal protecting films investigated by Navy ..... Oct. 8 254
National Bureau of Standards conducts research on fire retardant paints ..... Dec. 24 49
Parking see Street Traffic
Parsons, Admiral A. L. dies ..... Oct. 1 26

Pavements

Airports
Edwards Air Force Base, Calif. roads built of asphalt and soil-cement ..... Sept. 3 (F) *41
Indianapolis paving reinforced with welded wire ..... Dec. 10 *42
Morocco aftermath—good airbases. W. G. Bowman. ..... Aug. 27 (F) *30
Philadelphia runways (unit prices) ..... Oct. 8 197
Runway edges could be made thinner ..... Nov. 26 37
San Bernardino, Calif. runway extension (unit prices) ..... Nov. 26 59
Schenectady airport paving (unit prices) ..... Sept. 17 86
Houston, Tex. street paving (unit prices) ..... Sept. 24 66
Lakewood, Ohio (unit prices) ..... Oct. 8 199
Milwaukee tries permanent pavement markers ..... Dec. 3 64
Ohio paving tests ..... July 9 50
Picton, Ont. receives gift of free street paving ..... Oct. 29 58
Screeding machine for street paving ..... Sept. 10 *76
Tulsa donates test street for choosing traffic paint ..... Sept. 3 56
Perry, John P. H.—job well done ..... July 9 e112
Peru—Colonization venture gets under way ..... Dec. 31 41
Petroleum—Refinery costs and Nelson refinery construction index (table) ..... Oct. 8 115
Photography—Air photos spot fill for Canadian dam in wilderness. ..... Oct. 29 *47

Piles and Pile Driving

Axe, air-driven, cuts pile-pointing time ..... Nov. 19 *75
Load tests on steel piles. F. L. Pruyn ..... Nov. 19 12
Sand pile compaction. A. Mystkowski, W. F. Swiger ..... Sept. 3 13
Sand piles driving method not new in U. S. R. E. Talmadge. ..... Sept. 17 12
Tests of steel piles conducted in Chicago ..... Dec. 3 23

Pipes and Pipelines

American Marietta goes further into concrete pipe field ..... Sept. 10 24
Asbestos reclaimed from pipe insulation ..... Sept. 10 105
Bellaire, Ohio, lays perforated pipes in bed of river to collect water ..... Dec. 10 (F) *52
California sewer outfall placed in ocean by tower ..... Aug. 20 (F) *36
Crude petroleum pipeline from Alberta, Can. to Sarnia, Ont. (map) ..... Nov. 12 (F) *31
Crude petroleum pipeline from Alberta, Can. to Sarnia, Ont. located on map instead of ground. ..... Nov. 12 *37
Deepest ocean outfall for sewage diffusion, Los Angeles Districts ..... Dec. 24 (F) *38
Ft Lauderdale, Fla. water service uses preformed submarine crossings. D. W. Johnson ..... Dec. 24 *32
France to have jet fuel pipeline 400 miles long ..... July 23 59
Ice blocks lower live main, Henrico County, Va. ..... Sept. 24 47
Indian pipeline to connect refineries ..... Sept. 3 63
Monolithic pipe for California irrigation water. L. H. Kristof. Sept. 24 (F) *35
Montana 10-mile plastic pipeline laid by two men and a boy in five days ..... Nov. 5 *26
Natural gas
Line from Canada to Michigan to be considered ..... Aug. 20 81
New York City—natural gas piped from Texas into the city through three underwater crossings. R. H. Dodds ..... Aug. 13 (F) *37
Tennessee Gas wins long market battle ..... Sept. 10 158
Nine new standards for cast iron pipe published ..... Oct. 8 251
Oil pipelines beneath Straits of Mackinac, Mich. ..... Sept. 10 (F) *43
Omaha—rollers used to place pipe in tunnel ..... Dec. 3 *27
Petroleum pipeline for Alaska. ..Aug. 20 29
Petroleum pipeline pulled across the Straits of Mackinac. ..... Aug. 13 22
Petroleum pipeline to supply Alaska from Canada ..... Aug. 27 21
Plastic pipe discussed at New England Water Works Assn. ..... Oct. 8 73
Plastic pipe in France. ..... Dec. 17 52
Plumbers and pipelayers war about application of Davis-Bacon Law to laying pipes in trenches. ..... Oct. 15 27
Regina, Can. oil pipeline to be constructed ..... Nov. 12 63
Regina, Sask. orders steel pipe after tiff over concrete for water supply ..... Dec. 3 22
Sammy Collins lays pipes under water for Transcontinental Gas Corp. ..... Aug. 13 (F) *62
San Diego protests when jet fuel line is laid to Miramar Naval Air Station ..... Dec. 10 56
San Diego Gas & Electric Co.—long ocean pipeline laid in 13 hours ..... July 2 *27
South African petroleum pipeline planned ..... Dec. 31 41
Straightening metal pipe. G. Kuyt ..... Sept. 10 *76
Testing program inaugurated near Athens, Ohio ..... Oct. 8 251
Vallejo, Calif. pipe-cost formula upheld T. D. Kilkenny. ..... Aug. 27 8
Vallejo, Calif. pipeline formula claimed unfair. J. A. Ellis. ..... July 9 10

Planning

Chicago studies zoning putting emphasis on public nuisance rather than building type ..... Nov. 5 53
Citizens conference on resources for the future ..... Dec. 10 30
Cleveland merchants pay their share of off-street parking cost. .Sept. 3 (F) *48
Colombia discussing regional planning ..... Oct. 8 235
Columbus stresses planning to insure capital's future ..... Aug. 13 (F) *49
Ford Motor Co. of Canada planning town at Oakville, Ont. ..... July 9 49
India-East Punjab starts from scratch to build new capital city. Sept. 10 (F) *65
Philadelphia Redevelopment Authority plans Eastwick residential-commercial undertaking ..... Dec. 17 (F) 42
Portsmouth area—an A-plant brings prosperity and problems to southern Ohio ..... Nov. 19 (F) *40
Southern Regional Congress on City Planning meets ..... Sept. 3 51
Toledo performs annual audit stressing master plan need. ..... Nov. 12 53
Toledo river front rezoned. ...Sept. 17 50
Wilmington, Del. appoints new planning commission ..... Nov. 19 57
Zoning
Pittsburgh's regulations block housing, FHA man says. ..... July 9 45
Plant location—ODM should stop helping plants to bunch up. ..... Dec. 24 59
Plastics
Building panels precast in plastic forms ..... Oct. 22 *33
Montana 10-mile plastic pipeline laid by two men and a boy in five days ..... Nov. 5 *26

Ports and Harbors

Ashtabula, Ohio, planning improvements ..... Nov. 12 57
Colombia seeks loan for Barranquilla improvements ..... Oct. 29 72
El Salvador planning seaport of Acajutla ..... Sept. 3 63
El Salvador port to be surveyed for improvements ..... Dec. 10 76
Guatemala awards contracts for Santo Tomas seaport ..... Sept. 10 70
Haifa, Israel, to be made larger port ..... Sept. 24 51
Italy's Tiber River being hemmed in quay ..... Oct. 29 72
Jordan improves seaport. ..... Sept. 24 51
New Zealand's port of Wellington to be expanded ..... Dec. 17 50
Peru calls for bids on works for Salaverry ..... Oct. 15 46
Port Austin, Mich. harbor work costs reduced by laboratory tests. July 16 124
Portland, Ore. port modernization ..... July 23 *45
Rivers and harbors projects proposed (table) ..... Oct. 8 72
San Francisco Bay crossings to be studied ..... Sept. 3 24
Spain to improve port of Corunna ..... Dec. 31 41
Toronto port works. ..... Dec. 17 52
Turkey to expand port of Samsun ..... Nov. 5 68

Power and Power Plants

AEC Joppa, Ill. plant dismisses Ebasco Services as construction agent for electric plant ..... Aug. 13 (F) *21
Alaska cancels contract for steam electric plant at Anchorage ..... Oct. 22 39
Electric utility construction trends ..... Oct. 29 97
Federal power role to start decline, power policy statement affirms ..... Aug. 27 *23
Japan to have three privately owned electric power plants. ..... Nov. 5 67
Louisiana Power Station at Baton Rouge fills needs with deep wells plus river water. Alton Kirkpatrick ..... Dec. 24 (F) *28
New York City's 74th Street power plant (unit prices) ..... July 16 127
New Zealand drilling for steam to operate turbo-generators for production of electrical energy ..... Sept. 10 70
Public utility construction costs—Handy-Whitman index (tables) ..... Oct. 8 103
Rhodesia Congo to extend power stations of four copper-cobalt mining companies ..... Aug. 27 59
Steam power plants costs (tables) ..... Oct. 8 151
Venezuela—San Lorenzo to have thermoelectric plant ..... Dec. 10 76

Presses—Air Force wants cut in press programs ..... July 16 23
Producers Council, Inc., names new officers ..... Oct. 1 26

Public Works

AMA recommends direct dealings with Washington on federal air work ..... Dec. 10 28
Chicago outlines improvement program (table of costs and funds) ..... Dec. 31 (F) 38
New Zealand—Auckland's industrial development ..... Dec. 17 52
North Carolina votes $72 million for construction ..... Oct. 15 60
Ottawa, Ont. adding new federal structures ..... Dec. 10 55
Puerto Rican hospitals recommended ..... Nov. 19 72
St. Paul, Minn. launches decade of public construction ..... Nov. 26 (F) *45
Schools
Contractors submit school designs—quick construction ..... Nov. 5 (F) *54
Costs in New York City (charts & tables) ..... Oct. 8 145
Covington, Ky. school construction (unit prices) ..... Dec. 24 *56
Denver to assess builders who exceed time schedules ..... Oct. 8 221
Financing in Florida to be helped by auto licensing revenues ..... Sept. 17 24
Georgia preparing school building bonds ..... Dec. 31 26
How one state keeps school costs down (table) ..... Oct. 8 (F) *181
How school rentals are set under Authority financing ..... Oct. 8 173
Indiana school construction aid ..... Dec. 3 27
Levitt himself to build schools in Bucks County, Pa. ..... Nov. 19 143
New York City busy replacing old schools and building new ..... July 9 *44
$95 million asked for defense area schools ..... July 23 25
Toledo performs annual audit stressing master plan needed ..... Nov. 12 53
Washington, D. C.'s building program needs approval of Congress ..... Dec. 24 43
Puerto Rico—Public programs spark boom in construction ..... Oct. 22 (F) *40

Q

Quays see Ports and Harbors

R

Radio—Lebanese radio station ..... Dec. 17 52
Radioactivity—Cleaning of surfaces contaminated by radioactivity ..... Sept. 10 90
Rail and water terminals—
East Winona, Wis., plans barge rail terminal dock ..... Nov. 12 57
Railway cars
New flat car designed to coordinate rail and truck hauls ..... Nov. 12 *27
Railway terminals
Detroit lumber terminal offers stop-off service ..... Nov. 12 92
Train shed ..... Nov. 5 *47

Railways

Colombia clamps down on construction ..... Sept. 10 24
Colombia railway project continuing ..... Nov. 5 25
Cost index road construction (table) ..... Oct. 8 103
Passenger conveyor belt at Jersey City tunnel of Hudson & Manhattan RR ..... Oct. 15 23
San Diego-Imperial Valley, Calif. rail and highway route including mountain tunnel proposed ..... Dec. 24 23
Spokane and railway collaborate, invent new pavement guard ..... Oct. 1 *37

Rainfall and Runoff

Canada has heavy rainfall ..... Aug. 6 26
Dallas, Tex. rainmaking reward ..... July 9 49
Duluth damaged by rains ..... Oct. 8 219
Great Lakes states have too much rain ..... July 30 25
Israel wants U. S. rainmakers ..... Aug. 20 81
Precipitation and temperature in 20 cities (tables) July 16—41; Aug. 20—57; Sept. 24—42; Oct. 29—48; Nov. 26—36; Dec. 24 40
Radioactive gages signal water content of snow packs as aid in runoff control, Pine Flat Dam ..... Dec. 24 (F) *24
Rainfall distribution in the Kansas River basin in July, 1951 (map) ..... Aug. 20 *54
Scheduling construction by weather forecasts. W. R. Chalker (tables) ..... July 16 (F) *39
Texas troubled with drought ..... July 30 25
Weather Evaluation Board to study cloud seeding ..... Dec. 17 24
Rapid transit
Cleveland plans to extend system to the West ..... Nov. 19 57
Cleveland's rapid transit is a bargain ..... Oct. 8 (F) *211
Read, Granville M.—the Du Pont construction force. J. P. Chamberlain ..... Aug. 6 (F) *42
Real estate
"Operation Facelift" gets under way in Los Angeles ..... Nov. 26 *62
Sell-lease plans bring more construction business ..... Sept. 24 72
Reconstruction Finance Corp.—Small business bill picks up from RFC ..... July 30 21

Research

Concrete hardening speeded by new process developed by Michigan State College ..... Nov. 5 70
Concrete research center dedicated at Boettcher, Colo. ..... Sept. 10 *87
Employee owners of A. D. Little, Inc. ..... July 9 89
Getting more out of research ..... Sept. 17 e120
Illinois State Water Survey's laboratory installs flume with glass walls to study channel hydraulics. Dec. 24 (F) *48
Medical Research Center, Bethesda, Md. dedicated by Mrs. Hobby. July 16 *56
North Carolina gets grant for waste studies ..... Dec. 10 80
Ottawa, Can. research center designed for research in buildings ..... Nov. 26 *53
The questioning mind ..... Dec. 24 e80
Skokie laboratory features design economy ..... Aug. 20 *41
Swiss nuclear center to be built. Dec. 10 72
University of California plans Soil Mechanics Laboratory ..... Dec. 10 80
University of Michigan investigates air pollution ..... Dec. 10 80
Research see also Highway Research

Reservoirs

Boulder, Colo., approves reservoir funds ..... July 2 44
China-Kwanting Reservoir under construction ..... Oct. 22 *34
Dow Chemical, Brazoria, Tex. takes water from surface of stream with special structure ..... Nov. 19 *45
Great Britain—rubber lining placed in concrete basin to prevent leakage through cracks ..... Aug. 27 57
Green Verdugo Reservoir, Calif. paved by bottomless hopper ..... Aug. 13 *25
Houston's reservoir on San Jacinto River to be created by slab and buttress dam ..... Aug. 20 (F) *43
Kansas City reservoir scrubbed to remove algae ..... Oct. 8 *239
Omaha reservoir placed underground, golf course to be on top ..... Sept. 24 (F) *45
River regulating troubles in the Adirondack Mts. ..... Dec. 17 e96
Silting of reservoirs can be slowed (charts) ..... Aug. 6 *33
Upper Trinity River, Texas, watershed flood retardation work (map) ..... Nov. 12 (F) *45
Resources for the Future
Citizens conferences on resources for the future ..... Dec. 10 30
Rice paddies, California, surveyed to make levees erected by tractors and earthmover. T. E. Riley ..... Sept. 3 (F) *34

Rivers

Colombian naval bases on the Meta River ..... Sept. 17 64
Green River, Kentucky, locks to be modernized ..... Sept. 10 23
Klamath River Commission to study use of the waters ..... July 9 27
Mississippi-Missouri-Ohio River dams cut drought losses ..... Nov. 12 24
Mississippi River diversion through shortening delta at New Orleans troubles the city ..... July 9 49
Missouri River diversion by pumping or by dam ..... Sept. 24 26
Missouri River diversion can be better accomplished by a dam than by pumping plant ..... Nov. 26 21
Missouri-Souris diversion scheme in the Pick-Sloan plan to be revised (map) ..... July 30 *24
Rivers and harbors projects proposed (table) ..... Oct. 8 72
River regulating troubles in the Adirondack Mts. ..... Dec. 17 e96
Upper Trinity River, Texas, watershed flood retardation work (map) ..... Nov. 12 (F) *45

Roofs and Roofing

Arched hangar roof, Cuba, spanning 150 ft, is a 4-in shell between arch ribs ..... Nov. 12 *59
Auditorium's long-span roof supported by steel lamella ..... Nov. 26 *41
Barrel roof completed after textile machinery is moved into mill ..... Oct. 29 (F) *62
Chicago coliseum roof will span 500,000 sq ft of unobstructed floor ..... Dec. 10 (F) *25
Cincinnati armory's flat roof to be supported by arches ..... Dec. 3 *43
Concrete slab circling dome resting on pedestals, roofs hangar in Belgium ..... July 2 (F) *46
Ford simulates plant fire in tests using pitch vapor seal in roofing ..... Nov. 5 24
From roll to roofing in minutes. July 23 *97
Germany—stadium roof spans 278 ft for full view from bleachers. July 16 *82
Plastic skin sprayed on roof of Sherry-Netherland, N. Y. C. ..... July 23 27
Sawtooth roof for school in Washington State ..... July 16 *27
Tobyhanna, Pa. U. S. Signal Corp.'s depot roof has plastic dome skylights ..... Dec. 3 (F) *47
Vacuum concrete process applied to barrel vault roof slabs and walls, Bogota, Colombia ..... Nov. 19 (F) *61
Warehouse roofed with timber being built for government's supplies ..... July 16 *57
Westchester County Airport hangar's timber trusses set new span record ..... Sept. 3 (F) *31
Rubber—Great Britain—rubber lining placed in reservoir basin to prevent leakage through cracks ..... Aug. 27 57

S

Safety

California injuries high ..... Nov. 5 28
Construction firm and foreman fined for safety violation ..... July 30 24
Ideas to halt construction job fires ..... July 9 40
Job for the construction superintendent. J. B. Kovach ..... July 9 (F) *39
Safety demonstration. T. O. Rice ..... Aug. 20 15
Safety see also Fire protection, Highway Safety
Sanitary Engineering Research Projects
Release interim report on travel of water pollution ..... Nov. 12 71

Sanitation

For sanitary engineers. Rolf Eliassen ..... Sept. 10 11
Java's dearth of engineers endangers public health ..... Dec. 3 54
Plastic bags protect sterilized safety hats. J. B. Kovach ..... July 16 *59
Sanitary engineering neglected. G. H. Dunstan ..... July 9 10
Sanitary engineers—Joint Committee for the Advancement of Sanitary Engineering meets ..... Aug. 6 25
Schmitt, Frederick E. retires from Bureau of Reclamation post ..... Aug. 27 25
Seawalls see Shore protection
Seaways see Waterways

Sewage Treatment

AEC Idaho station builds first full-scale plant for radioactive wastes ..... Aug. 6 (F) *37
American Public Health Assn. meets in N. Y. ..... Nov. 19 30
Arkadelphia, Ark. sewage treatment (unit prices) ..... Oct. 8 193
Barbourville, Ky. water and sewage system (unit prices) ..... Oct. 8 190
Bardstown, Ky. moves toward treatment plant ..... July 23 50
Brazil—six sewage treatment plants planned for Sao Paulo district ..... Dec. 17 50
Cheaper and faster sludge digestion methods proved by plant experience ..... Oct. 22 *23
Clarksville, Va. flooded by Kerr Dam to have new sewage plant. Sept. 17 54
Columbia River basin needs 119 pollution abatement projects ..... Oct. 15 25
Cumberland River, Tenn. regulated discharge helps solve pollution ..... Oct. 1 25
Enzyme catalysts tried in San Leandro, Calif. not successfully. E. R. Ross ..... Oct. 29 19
Golden, Colo. brewery and city wastes combined in unusual disposal plant ..... Aug. 27 (F) *46
Inventory of sewage disposal facilities—1953 (tables) ..... Oct. 15 (F) *37
Little Miami sewage treatment plant dedicated in Cincinnati ..... Oct. 22 37
Louisville, Ky. sewerage financing controversy settled ..... Dec. 17 48
Miamisburg, Ohio, sewage treatment plant (unit prices) ..... Oct. 15 58
Mill Creek plant started in Cincinnati ..... Oct. 22 37
Milwaukee to produce Vitamin B-12 from fertilizer made from sewage sludge ..... Sept. 3 72
Northern Kentucky Sanitation Dist.—progressive tunneling works without use of liner plates ..... Sept. 10 (F) *55
Ohio communities allowed to try sewage lagoons for waste treatment ..... Dec. 24 23
Oklahoma City sewage plants constructed in sand of high salt content ..... Oct. 22 39

* Illustrated; e, editorials; (F) Articles over a page

Pennsylvania to provide aid for local sewage plants ....Aug. 6 24
Pittsburgh Sewage works design nearly completed ....Oct. 1 (F) *39
Portland, Ore. two sewage pumping plants to help solve pollution problems (map) ....Aug. 6 (F) *49
Rantoul, Ill. water and sewerage utilities (unit prices) ....July 2 69
Raritan sewer work cleared by court ruling ....Aug. 27 24
Richfield, Utah, buys bargain sewage plant ....Oct. 29 58
San Jose, Calif. assured sewage treatment plant ....Dec. 3 65
Seattle's sewage outfall pipe opposed ....July 2 44
Sewage lagoons—low-cost treatment and disposal method. W. J. Wenzel Aug. 20 (F) 48
Sewage lagoons. A. F. Vorndran Jr. Sept. 17 12
Vancouver, B. C. area sewerage and drainage construction recommended Oct. 15 43
Virginia-Delaware cities join bid for clean rivers ....Oct. 15 44
Wonder drugs—will they cure waste treatment ills? McKinney & Sawyer Oct. 1 (F) *34
Youngstown, Ohio, votes to plan sewage disposal plant ....Aug. 13 53

Sewers

Alabama court rules on service fee; finds charges were illegal....Dec. 10 55
Brooklyn, N. Y. sewer job speeded by shop-built traveling form. J. R. Owen Nov. 19 (F) *50
California—ocean outfall placed by tower ....Aug. 20 (F) *36
Camden, N. J. intercepting sewer along the Delaware River (unit prices) Aug. 13 86
Checklist of special features in interceptor sewer design. G. O. Consoer Oct. 1 33
Deepest ocean outfall for sewage diffusion, Los Angeles Districts Dec. 24 (F) *38
Hawaii solicits pipe bids for sewers Dec. 10 61
Honolulu mends leaking sewers with cement and surfboards. H. C. Finely Nov. 12 *75
Inventory of sewage disposal facilities —1953 (tables) ....Oct. 15 (F) *37
Israel—Tel-Aviv sewage system to be modernized ....Dec. 10 76
Los Angeles, Calif. sanitary sewers (unit prices) ....Oct. 15 58
Milwaukee officials act to reduce sanitary flow ....Aug. 6 38
Northern Kentucky Sanitation Dist.—progressive tunnelling works without use of liner plates ....Sept. 10 (F) *55
Phoenix, Ariz. sewer protection plan July 9 50
Queens sewers in New York City are election issue ....Oct. 29 24
Raritan trunk sewer contracts signed Oct. 22 22
Rochester abolishes sewer rental charge Oct. 22 39
Stratford, Conn. trunk sewer (unit prices ....Aug. 20 146
Washington State storm sewers (unit prices) ....Nov. 26 59
Winsted, Conn. sewer (unit prices) Oct. 8 193
Ships—Lebanon to receive electricity generated from ships moored in Beirut's harbor ....Sept. 17 64

Shopping Centers

Cleveland suburb shopping center July 23 *47
Detroit shopping center has 7,500 car spaces ....Dec. 17 (F) *43
Mexico City shopping center building suspended from two concrete arches Aug. 20 *77
Milwaukee, Wis. to have more shopping space ....July 9 50
Sunnyvale, Calif. shopping center being built ....Nov. 5 61
Yonkers, N. Y. plans center....July 23 50

Shore Protection

Grosse Pointe Farms, Mich. seawalls and piers (unit prices) ....Oct. 8 197
Massachusetts to carry out improvement of state-owned beaches. July 23 25
Netherlands repair defenses against the sea ....Oct. 15 (F) *34
Shinnecock Inlet, N. Y. stone jetty and light tower (unit prices)..Oct. 8 199
Small business bill picks up from RFC July 30 21
Smoke abatement—Raleigh, N. C. smoke to be curbed....July 2 44
Snow—Glenwood Springs, Colo. removes snow by sprinkler truck with hot water Dec. 31 *26

Soil Mechanics

Electro-osmosis was needed. Leo Casagrande ....July 23 15
National Bureau of Standards speeds soil corrosion tests ....Nov. 5 40
Seepage through dam checked by injecting chrome-lignin ....Oct. 8 247
Soil compaction methods. J. P. Scheetz July 30 14
Soil compaction of backfill around San Diego aqueduct ....July 23 *35
University of California plans Soil Mechanics Laboratory ....Dec. 10 80
Soper, Henry—small-scale models for power plants ....Nov. 26 (F *48

Stadiums

Casablanca's new sports stadium with bold cantilever roof ....Aug. 13 *34
Chicago coliseum roof will span 500,000 sq ft of unobstructed floor Dec. 10 (F) *25
Corpus Christi, Tex. auditorium's long-span roof supported by steel lamella Nov. 26 *41
Denmark auditorium can be changed by moving sliding wall and brinking up seats in sections....Dec. 3 (F) *51
Pensacola, Fla. to construct auditorium Dec. 3 66
Toledo sports arena noise killed by glass fiber baffles ....Dec. 24 *26

Standardization

Heavy-duty flooring standards published ....Nov. 5 70
Load calibrating devices of high capacity developed by the Bureau Sept. 10 90

Steel

Construction No. 1 steel buyer (chart) Dec. 10 145
Contracting firm wants to acquire another mill ....Dec. 10 145
Denver skyscraper to have aluminum panels, porcelain-enameled steel panels and large areas of glass Dec. 3 *22
German combine to build steel plant for India ....Sept. 17 62
Implications of a new specification July 16 e180
NBS studies corrosion of buried irons and steels ....Oct. 8 247
New England plans $16-million steel plant ....Oct. 1 45
New specifications justified. R. R. Britton ....Aug. 20 11
Record steel shipments in first nine months ....Nov. 5 28
Specifications for a weldable structural steel ok'd by ASTM....July 9 26

Street Traffic

Columbus to relieve congestion with innerbelt system ....Dec. 31 26
Cumberland, Md. had walk lights years ago. H. M. Henderson....July 2 8
Dayton makes traffic safer with new traffic engineering department Oct. 29 (F) *54
New York City announces new signs Oct. 29 58
New York City traffic signal posts of aluminum reduce costs....Nov. 26 46
Oakland, Calif. traffic jam ended at Oakland dam ....July 2 *42

Parking

Akron revises building code for parking garages ....Nov. 19 57
Chicago ordinance requires built-in parking in new buildings..Sept. 3 55
Chicago—underground parking garage ramps ....Dec. 24 *34
Cleveland merchants pay their share of off-street parking cost Sept. 3 (F) *48
Cleveland studies proposed three-level garage ....Aug. 6 51
Cleveland underground garage squabble ....Nov. 5 61
Dallas rescinds franchise for over-the-street parking ....July 16 73
Detroit shopping center has 7,500 car spaces ....Dec. 17 (F) *43
Eau Claire, Wis. dedicates self-parking ramp garage....Dec. 3 66
New York City's alternate-side-parking law aids clean-up....Oct. 15 43
Pigeon Hole garages now of precast concrete, formerly steel racks. Oct. 8 *75
Pittsburgh's park-topped underground garage ....Nov. 5 (F) *48
Report on parking solution: slow and not at all sure....Dec. 10 (F) *21
Spokane, Wash. double parking elevator ....Nov. 5 13
Spokane, Wash. Pigeon Hole Parking bought by Texas group....Nov. 26 63
Two Colorado banks join for parking July 23 50
Washington, D. C. Park-O-Mat claims success after 22 months in operation ....Nov. 26 47

Parking see also Garages

San Francisco to test the "scramble system" ....Oct. 29 58
Who's first on the street? J. G. Kneiling ....July 16 10

Streets

Chicago outlines improvement program (table of costs and funds)...Dec. 31 38
Cleveland street blast probed by engineers ....Sept. 24 *24
San Diego orders one-way grid pattern for downtown section of city Oct. 22 39

Subways

Chicago extension job planned...Oct. 22 22
Chicago subway contract....Nov. 26 26
Cleveland talks subways in bond issue plans ....Sept. 10 59
Italy—Rome subway to be completed Dec. 31 41
New York City
Queens tracks (unit prices)..Oct. 8 205
Peru—Lima to have subway....Oct. 29 72
Toronto subway builder underpins greater floors on ground. Dec. 17 (F) *37
Turkey to build subway at Istanbul Nov. 12 63

Surveys and Surveying

Crude petroleum pipeline from Alberta, Can. to Sarnia, Ont. located on map instead of ground....Nov. 12 *37
Geodetic measuring tapes get new test Sept. 10 * 88
Home made plumb board makes a steady plumb line....Aug. 20 *113

T

Taconite
Minnesota faced with new water needs due to taconite processing....Oct. 22 32
Erie Mining picks contractor for taconite plant at Aurora, Minn. Dec. 10 145

Tanks and Standpipes

Concrete roof failure probed, Everett, Mass. ....Oct. 15 *25
Deaeration tank checks rust in water system at St Albans Hospital. J. L. Staunton ....Aug. 27 (F) *42
Everett, Mass. roof collapse. C. A. Shook Jr. ....Dec. 3 14
Firewalls surrounding fuel oil tanks, Pacific Gas & Electric, are precast, prestressed ....Dec. 17 (F) *33
Omaha reservoir placed underground, golf courses to be on top Sept. 24 (F) *45

Taxation

AEC contractors will now pay state sales tax in Tennessee....Oct. 15 60
Colorado Supreme Court holds the general contractors engaged in heavy construction are exempt from tax on common carriers ....Oct. 22 22
Heavy federal taxes seen municipal drain ....Dec. 10 62
Ketchikan, Alaska, to waive taxes through building periods....July 2 43
Pennsylvania puts sales tax on building materials ....Sept. 10 22
Television—Concrete pouring shown on television for sidewalk superintendents Oct. 22 *35
Tidal power—Rance River Dam, France, to harness tidal flow....Dec. 31 41
Tipton, Royce finds fortune in water Sept. 3 (F) *66
Titanium—Crane Co. settles on Chattanooga, Tenn. for titanium plant Sept. 19 24
Tornadoes see Wind Storms
Trailers
First aid station in a trailer...Oct. 22 *34
House-trailer laboratory for Central Valley home planning....Aug. 20 116
Training
Apprentice training shown in movie Aug. 20 *32
Florida to hold training program for highway engineers ....July 23 27
Tramways see Cables and cableways
Transportation—New York City Transit Authority asks billion dollar budget Aug. 20 69

Trucks

California seeks safe backing up Aug. 13 23
Fire tube water tank for winter concreting ....July 23 *43
New Jersey to start plan to give heavy truck drivers special tests...Sept. 10 26
Palisades Dam tunnel-lining sections hauled to place by special unit Nov. 26 *41
Truck platform extended....July 23 *43
Virginia to consider new trucking laws Dec. 17 26
West Coast truckers end "park-down" strike over weight limit enforcement July 16 *22
Wisconsin changes laws on trucks July 9 24

Trusses

Long timber trusses. R. S. Allen Sept. 24 12
Nailed trusses prove cheaper than bolted bowstring trusses....Dec. 17 *35

* Illustrated; e, editorials; (F) Articles over a page

Tunnels

Alaska-Eklutna tunnel holed through Nov. 12 24
Baltimore harbor tunnel location set July 16 22
Baltimore planning two underwater tubes ..... Aug. 13 *24
Boston—Water tunnel extension contracts awarded (map) ..... Dec. 24 *41
Canada—Niagara Falls—Sir Adam Beck Station—on schedule Sept. 10 (F) *33
Chicago filtration plant tunnel bids are in ..... Aug. 27 25
Corpus Christi harbor crossing design work starts ..... Nov. 5 22
Denver wants federal loan for 23 mile water tunnel ..... Dec. 31 25
Euclid, Ohio, sewer tunnel bored by mining machine ..... July 30 *23
Germany—Flat jacks prestress lengths of tunnel linings. Curzon Dobell Dec. 10 66
Hampton Roads, Va. crossing progress July 16 22
Hawaii
Honolulu highway tunnel to be part of new four-lane highway .. Aug. 6 26
Houston
Baytown Tunnel opened to traffic Sept. 24 *25
India
Vehicular tunnel to link Kashmir and India ..... Dec. 10 65
Japan
Railway tunnel 24 miles long to be built undersea ..... Aug. 31 61
Netherlands
Opej-cut tunnel to go under canal at Velsen for vehicles and railway Nov. 19 (F) 67
New Orleans
Belle Chasse and Harvey Tunnels ready for bids ..... Nov. 5 *22
New York City
Hoboken, N. J.—14th St. N. Y. C. tunnel pushed ..... Sept. 3 52
Holland Tunnel—bust of Clifford Holland the engineer and builder unveiled ..... Nov. 19 *27
Lincoln Tunnel—third tube contract awarded ..... Oct. 22 26
Lincoln Tunnel's third tube (unit prices) ..... Nov. 12 90
Lincoln Tunnel traffic ..... Sept. 3 55
Northern Kentucky Sanitation Dist.—progressive tunneling works without use of liner plates ..... Sept. 10 (F) *55
Omaha—rollers used to place pipe in tunnel ..... Dec. 3 *27
Palisades Dam, Idaho, tunnel-lining sections assembled by automatic welding ..... Nov. 26 (F) *39
Pennsylvania Commission to build highway toll tunnels ..... Aug. 6 23
Queen Creek Tunnel, Ariz. Dedication July 16 *57
San Diego-Imperial Valley, Calif.
Proposal for low-level rail and highway route including mountain tunnel ..... Dec. 24 23
Tecolote Tunnel, Calif.
Lining of tunnel to heading planned to overcome intense heat ... Nov. 26 *25
Problems for contractor ..... Sept. 24 26

U

Unit Prices

Unit prices ... Puly 2—69; July 16—127; July 23—74; July 30—125; Aug. 13—86; Aug. 20—146; Aug. 27—74; Sept. 3—96; Sept. 17—86; Sept. 24—66; Oct. 15—58; Oct. 22—50; Oct. 29—88; Nov. 12—90; Nov. 19—133; Nov. 26—59; Dec. 17—66; Dec. 24—56; Dec. 31 53
Contract unit price index—Western States 1946-1953 (table) ..... Oct. 8 97
Credit for price data, G. H. Walker Nov. 26 15
Estimating construction budgets in N. Y. City, 1953 (table) ..... Oct. 8 161

U. S. Army Engineers

Accident at Ft Bragg. G. M. Dexter Dec. 10 10
Accident at Ft Bragg. A. C. Lieber Dec. 10 10
Deputy Army Engineer post divided July 23 *23
North and Northwest districts to be made one district ..... Oct. 1 26
Survey of department under way Sept. 3 21
Top posts shifted ..... Oct. 1 *26

U. S. Bureau of Public Roads

Combines two divisions ..... Oct. 8 73
Survey in Washington ..... Sept. 3 21

U. S. Bureau of Reclamation

Commissioner of Reclamation Outlines policy of "farming out" engineering work ..... Aug. 27 22
Dexheimer appointed Commissioner July 15 21
Region II reorganized ..... Sept. 24 26
Reorganization of department .. Sept. 3 21
Reorganization to shift operational control to field ..... Nov. 5 (F) *21
Spencer assigned to reshape Region 2 July 16 74
Survey of the agency may lead to reshuffling of the organization and operations ..... Aug. 20 (F) 25
U. S. Bureau of Yards and Docks
Rear Adm. J. R. Perry to be Chief Oct. 22 *21
U. S. Dept. of Commerce
Changes in operations ..... Sept. 3 21
U. S. Dept. of Labor
J. P. Mitchell is new secretary Oct. 15 *28
U. S. Forest Products Laboratory
New research information ..... Dec. 24 49
U. S. Government
Washington throws its weight on the side of inflation ..... Nov. 5 101
Uranium plant to be built at Shiprock, N. M. ..... Nov. 19 27

V

Venezuela
Chamber of Commerce says that Venezuela does not need the aid of American firms to do their projects Oct. 29 e120

W

Walls

Denver skyscraper to have aluminum panels, porcelain-enameled steel panels and large areas of glass Dec. 3 *22
ENR survey of building codes shows inconsistencies in skyscraper wall requirements. F. S. Merritt Dec. 24 (F) *21
Firewalls surrounding fuel oil tanks, Pacific Gas & Electric, are precast, prestressed ..... Dec. 17 (F) *33
Gypsum-unit walls used by our airbases in France. W. G. Bowman Oct. 29 (F) *32
Honeycomb sandwich wall has steel frame, aluminum sheet outside, paper inside—used in airbases in France. W. G. Bowman ..... Oct. 29 (F) *32
New York City Skyscraper—aluminum panel replacement. F. P. O. Potter Oct. 1 12
New York City Skyscraper—aluminum panels for walls Aug. 13—*43; Sept. 3 e128
Panel walls: which trade does what? New York City's skyscraper 99 Park Ave. ..... Oct. 29 *29
Sandwich panels of concrete and of steel-and-aluminum enclose Grumman Aircraft plant ..... Aug. 20 *25
Steel curtain walls studied by Princeton University ..... Oct. 8 254

Wastes, Industrial

AEC Idaho Station builds first-scale plant for radioactive wastes Aug. 6 (F) *37
Brewery and city wastes combined in unusual disposal plant near Denver Aug. 27 (F) *46
Du Pont to build trade-waste retention pond at Nashville, Tenn. plant Dec. 24 26
Fish killed on the Kalamazoo River, Mich. ..... Nov. 26 *37
North Carolina State gets grant for waste studies ..... Dec. 10 80
Ohio orders blast furnaces to apply for waste disposal permits ..... July 30 27
Paper company to treat sulphite waste with bark to prevent stream pollution ..... Dec. 31 25
Wonder drugs—will they cure waste treatment ills? McKinney & Sawyer Oct. 1 (F) *34

Water mains
Chicago's water main plan ..... Dec. 3 66

Water Pollution

Chesapeake Bay clean-up urged Oct. 8 222
Cincinnati plays host to Ohio River Valley Clean Water Rally ..... Oct. 22 37
Columbia River basin needs 119 pollution abatement projects ..... Oct. 15 25
Cumberland River, Tenn. regulated discharge helps solve pollution .. Oct. 1 25
Effect of sanitary landfill on ground water reported ..... Aug. 20 118
Fish killed on the Kalamazoo River, Mich. ..... Nov. 26 *37
Girard, Ohio, leads the way to cleaner stream conditions ..... July 23 46
How density currents affect water controllers, water users (charts) Dec. 17 (F) *31
Interstate Commission on the Potomac River Basin reveals progress on stream pollution ..... Sept. 17 24
Minnesota, Wisconsin join on pollution control ..... Sept. 3 26
North Carolina holds hearings on stream sanitation ..... July 23 25
North Carolina State Stream Sanitation Committee adopts pollution control standards ..... Dec. 3 26
Ohio River pollution abatement aided Oct. 22 e76
Raritan River clean-up now assured July 16 27
Sanitary Engineering Research Projects release interim report on travel of water pollution ..... Nov. 12 71
Somerset-Raritan Valley Sewerage Authority named to clean up the Raritan River ..... Nov. 19 28
Virginia-Delaware cities join bid for clean rivers ..... Oct. 15 45
Wisconsin grants tax concessions for money spent on stream and air pollution ..... July 9 24
Wisconsin issues pollution orders July 30 24
Wisconsin law grants aid to firms' clean-up drives ..... Oct. 8 222
Water pollution see also Wastes, Industrial

Water Resources

Citizens conference on resources for the future ..... Dec. 10 30
Committee of experts drafting points for discussion at Washington Conference ..... Sept. 17 23
Hoover Commission's water and power group ..... Nov. 12 22
Non-partisan water policy ..... Sept. 24 e96
Ventura County, Calif. water resources votes bond for development .. Nov. 12 *26

Water Rights

California sets up Colorado River boundary commission to draft river compact with Arizona ..... July 30 27
New Jersey's legislature passes bill to remove Pennsylvania opposition to more water from Delaware River Dec. 31 23

Water Supply

Anahuac, Tex. water system (unit prices) ..... Oct. 8 195
Baltimore's Liberty Dam becomes the East's first fly-ash concrete dam Sept. 17 (F) *35
Bellaire, Ohio, finds that gallery water under bed of river is cheaper than water on surface ..... Dec. 10 (F) *52
Boston's water tunnel extension contracts awarded (map) ..... Dec. 24 41
Chicago filtration plant tunnel bids are in ..... Aug. 27 25
Cuban waterworks to be expanded Nov. 19 72
Denver wants federal loan for 23 mile water tunnel ..... Dec. 31 25
Dow Chemical, Brazoria, Tex. takes water from surface of stream with special structure ..... Nov. 19 *45
Edina, Mo. drought stricken is helped by Army pipeline unit ..... Dec. 10 *27
Ellenton, S. C. faces water shortage Nov. 19 57
Eloy Water Co. sold to Eloy, Tex. Nov. 19 57
Fort Randall, S. D. artesian wells capped ..... Dec. 31 25
Houston-outdoor piping serves raw water to industry from station that also feeds filtration plant Sept. 10 (F) *51
Houston—San Jacinto River Water Project to be finished this year Aug. 20 43
How density currents affect water controllers, water users (charts) Dec. 17 (F) *31
Hungry Horse Dam storage to be tapped to aid aluminum companies Nov. 26 24
India discovers ground water near Kandla ..... Oct. 8 234
Industrial water use study covers 151 cities ..... July 16 124
Interstate Commission Delaware River Basin (Incodel)
Interstate accord salvaged .... July 2 e96
Landrum, S. C. water works (unit prices) ..... July 30 125
Los Angeles adds to water supply Oct. 8 222
Los Angeles to receive water from Green Verdugo Reservoir which is paved by bottomless hopper .. Aug. 13 *25
Louisiana Power Station at Baton Rouge fills needs with deep wells plus river water. Alton Kirkpatrick Dec. 24 (F) *28
Louisville, Ky. water cooling with wells used in pairs. H. B. Davidson Oct. 8 *239
Minnesota faced with new water needs due to taconite processing ... Oct. 22 32
Mount Airy, N. C. water system contract let ..... Nov. 5 61
New Mexico wants to study underground water potential ..... Oct. 15 23

New York City
New Jersey's legislature passes bill to remove Pennsylvania opposition to more water from Delaware River ..... Dec. 31 23
Ohio studies measures to boost water supply ..... Oct. 8 74
Oklahoma City to vote on bonds for wells ..... July 9 49
Pennsylvania water demand...Aug. 20 38
Phoenix, Ariz. 50-year plan for water is half accomplished ..... Dec. 3 60
Puerto Rico to have new supply ..... Oct. 8 234
Reservoir silting can be slowed (charts) ..... Aug. 6 *33
San Diego, Calif. completing Sutherland Dam after 25-year construction lapse ..... Nov. 12 (F) *48
San Diego doubles aqueduct capacity seven years after construction ..... July 23 (F) *35
San Francisco—consultants engaged for Bay study ..... Sept. 24 24
San Francisco salt water barrier survey group named ..... Nov. 19 27
San Francisco's water supply project Cherry Valley Dam bids.....Aug. 27 26
Texas's Sabine Valley Authority seeks master plan for development ..... Sept. 17 25
Texas studies report on need for water supply projects ..... July 23 24
Texas—12 cities band together to build dam to increase water supplies ..... July 16 (F) *43
U. S. Forest Service experimenting on increasing water yield.....July 16 92
Water works cost indexes (chart & tables) ..... Oct. 8 113

Water Treatment

Akron to have treatment plant ..... July 23 50
Aldrich water purification unit costs compared with conventional filter plants ..... Oct. 8 *178
Aldrich water purification unit for further comparison. L. R. Howson ..... Nov. 5 13
Army's new mobile water purification unit. Lowe, Schmitt & Spaulding ..... Sept. 24 (F) *39
Barbourville, Ky. water and sewage system (unit prices).....Oct. 8 190
Chalmette, La. water filtration plant (unit prices) ..... Oct. 8 195
Chicago filtration plant construction blocked by Cook County court ..... Sept. 3 23
Chicago's Filtration Plant work stoppage involves more than engineering ..... Oct. 1 e64
Cordova, Ala. filtration plant additions (unit prices) ..... Oct. 22 50
Deionizing water treatment for Louisiana Power Station at Baton Rouge. Alton Kirkpatrick .....Dec. 24 (F) *28
Egypt treating the River Nile to improve water supply.....Oct. 15 *45
Fluoridation investigated for New York City ..... Nov. 5 61
Fluoridation re-endorsed by the American Dental Assn.....Oct. 22 38
Houston—outdoor piping serves raw water to industry from station that also feeds filtration plant ..... Sept. 10 (F) *51
Lafayette, Calif. filter plant features semi-automatic operation....Oct. 22 38
New Orleans water plant assured ..... Nov. 19 57
Position re-emphasized. H. L. Jacobs ..... Dec. 17 11
Rantoul, Ill. water and sewerage utilities (unit prices).....July 2 69
St Albans Naval Hospital—rust in water prevented by deaeration. J. L. Staunton .....Aug. 27 (F) *42
St Louis water supply fluoridation to be authorized .....Oct. 29 58
Salt water conversion to fresh-research contracts awarded by Reclamation Bureau .....Sept. 10 87
San Francisco salt water barrier survey group named .....Nov. 19 27
Sea water evaporation to obtain fresh water. R. E. Kennedy.....Sept. 10 6
Utah Supreme Court declares four-mill tax levy for water purification is illegal .....Oct. 29 58

Waterways

Intracoastal Waterway—improved lock gate design reduces filling turbulence ..... Nov. 26 (F) *42
St Lawrence Seaway
British collaboration on Seaway ..... Aug. 13 59
British firms combine to bid on project .....Dec. 17 49

Weather

Commerce Dept. picks experts to advise on weather.....July 23 81
Precipitation and temperature in 20 cities (tables)..July 16—41; Aug. 20 57
Sept. 24—42; Oct. 29—48; Nov. 26 36
Dec. 24 40
Scheduling construction by weather forecasts. W. R. Chalker (tables) ..... July 16 (F) *39
Survey report urges U. S. Weather Bureau drop tailored forecast for industry .....Dec. 17 24
The weather—it's worth talking about ..... July 16 (F) *35

Welding

Automatic welding assembles tunnel-lining sections for Palisades Dam, Idaho .....Nov. 26 (F) *39
California Electric Power's Poole Plant penstock quickly repaired....Sept. 17 *42
Oil pipeline welded in sections at yards to go beneath Straits of Mackinac, Mich. .....Sept. 10 (F) *43
Portland, Ore. BPA welded building designed to resist seismic loads ..... Oct. 15 (F) *30

Wells

Capping artesian wells at Fort Randall points up South Dakota water problem .....Dec. 31 25
Water cooling with wells used in pairs. H. B. Davidson .....Oct. 8 *239
West, Col. Robert G. dies—noted for flood control .....Nov. 26 24

Wharves and Docks

Hoboken pier may have a prestressed concrete deck as a result of bids ..... July 23 26
New Orleans wharf to be built...July 2 44
Wheeler, Lieut. Gen. R. A. nomination to be chief of U. N. Relief & Works Agency .....Sept. 24 e98
White, Lazarus, authority on foundations dies .....Aug. 6 *36

Windstorms

Tornadoes strike again.....Dec. 17 e98
Vicksburg, Miss. badly damaged by tornado .....Dec. 10 38
Worcester tornado velocities found through tower failures on powerline. C. A. Booker.....Oct. 15 *33
Wood—Prefabrication and glued lamination bring in low-cost school, Everett, Mass. .....Sept. 10 23
World Bank creates market for U. S. construction goods .....Sept. 17 58

* Illustrated; e, editorials; (F) Articles over a page

AUTHOR INDEX

Authors

Adams, Alan—Building trades harmony in the balance....Dec. 31 27
Allen, Richard S.—Long timber trusses Sept. 24 12
Argyropoulos, P.—Q equaled AV in 100 BC....Dec. 31 12

Balbachevsky, G. N.—New steel bridge is first to span Meuse River without river piers....Aug. 13 *58
Bertsch, E. A. & Americo Silvera—Aggregates cooled on belts for Vaitarna Dam in India....Sept. 3 *37
Blanchard, G. L.—Airbases abroad Oct. 1 12
Inspection insurance....Dec. 17 11
Boeckh, E. H. & Assoc.—Index of building costs—U. S. average 1926-29 (table Oct. 8 99
Booker, Clyde A.—Worcester tornado velocities found through tower failures on powerline....Oct. 15 *33
Bosch, A. D.—Sprinkler costs being cut Dec. 24 10
Bowman, Waldo G.—Aftermath in Morocco—good airbases....Aug. 27 *30
Our airbases in France are different Oct. 29 *32
World's tallest dam rises in Switzerland Dec. 3 *32
Britton, Ralph R.—New specifications justified....Aug. 20 11
Performance standards....Dec. 3 10

Campbell, A. F.—Arch tie prestressed to hold length....July 16 *48
Carr, J. Roland—Highway officials call construction funds most pressing problem for nation's roads..Nov. 19 *25
State, county road engineers get tips on how to cut costs....Oct. 1 23
Casagrande, Leo—Electro-osmosis was needed....July 23 15
Chaiker, W. R.—Scheduling construction by weather forecasts....July 16 *39
Chamberlain, J. P.—The Du Pont construction office engineering tomorrow's world....Aug. 6 (F) *42
It's good weather for borrowing Sept. 24 21
July drop in house starts worries home builders....Aug. 20 151
Consoer, George O.—Checklist of special features in interceptor sewer design Oct. 1 33
Coulson, Bennett & R. C. Hilton—Assembly-line precasting erection yield 10,000 sq ft of factory daily....Dec. 10 *40
Crouse, W. J.—Kentucky contract work Sept. 3 10

Davidson, H. B.—Water cooling with wells used in pairs....Oct. 8 *239
Dexter, Gregory M.—Accident at Ft Bragg....Dec. 10 10
Dobell, Curzon—Flat jacks stress 500 ft of tunnel....Dec. 10 66
Dobell, Curzon & Fritz Leonhardt—Wrap-around cables prestress long continuous girder bridge....Sept. 3 *43
Dodds, Robert H.—AGC finds road contractors concerned over confusion in toll highway specs....Sept. 24 *23
Pipeliners' nightmares are over..Aug. 13 *37
Dore, Arthur E.—Thule architect-engineers....Dec. 10 11
Drulard, N. R.—Highway award papers July 30 14
Dunstan, Gilbert H.—To overcome deficiency....July 9 10

Eliassen, Rolf—For sanitary engineers Sept. 10 11
Ellis, J. A.—Formula claimed unfair July 9 10

Ferris, George F.—Airbases abroad Aug. 20 11
Finley, Harry C.—Sewers, cement and surfboards....Nov. 12 *75
Fox, A. J. Jr.—Hydraulic specialists cite practical uses of science for everyday construction....Sept. 10 24

Bill Orchard, poet, peddler, sanitary engineer....Oct. 1 *38

Gage, Frank H.—Plants can be fire safe Oct. 22 13
Ganz, I.—Safety first....July 30 14
Genovese, Philip W.—Clarification needed Oct. 15 6
Groeninger, F. H.—Credit due....Oct. 15 10

Hadley, Homer M.—Prestress economy doubted....Sept. 3 10
Hays, James B.—Use of salt in clay core aids winter dam building....Aug. 6 *41
Hedefine, Alfred—Airbases abroad Aug. 20 11
Henderson, Helen M.—Who scrambled first?....July 2 8
Hilton, Ralph C. & Bennett Coulson—Assembly-line precasting erection yield 10,000 sq ft of factory daily Dec. 10 *40
Holderman, V. N.—Fuzzy thinking? Aug. 13 10
Homsy, Norman A.—Architects and engineers....Dec. 3 10
Howson, Louis R.—For further comparison....Nov. 5 13

Itschner, E. C.—No squabble....Aug. 6 13

Jacoby, Ensign Howard—High-speed channels spell low-cost airfield drainage....Nov. 5 *41
Johnson, Dewey W.—Preformed submarine crossings....Dec. 24 *32

Kennedy, Robert E.—Fresh water from the sea....Sept. 10 6
Kilkenny, T. D.—Pipe-cost formula upheld....Aug. 27 8
Kirkpatrick, Alton—Deep wells plus river water fill big power plant needs Dec. 24 *28
Kneiling, John G.—Who's first on the street?....July 16 10
Kovach, J. B.—Plastic bags protect sterilized safety hats....July 16 *59
Safety: job for the construction superintendent....July 9 *39
Kristof, L. H.—Monolithic pipe for irrigation water....Sept. 24 *35
Kuyt, G.—Straightening metal pipe Sept. 10 *76

Larson, C. E.—Danger—slippery when wet....Oct. 29 *45
Lee, Donovan H.—Prestressing in England....July 9 6
Leonhardt, Fritz & Curzon Dobell—Wrap-around cables prestress long continuous-girder bridge....Sept. 3 *43
Lieber, A. C.—CE comment....Dec. 10
Lowe, H. N. Jr. R. P. Schmitt & C. H. Spaulding—Army's new mobile water purification unit....Sept. 24 *39

McKinney, Ross E. & C. N. Sawyer—Wonder drugs—will they cure waste treatment ills?....Oct. 1 *34
McMillan, C. R.—Letter to W. C. Bowman Nov. 19 168
Merritt, Frederick S.—Code confusion: it hampers wall design....Dec. 24 *21
Specs for weldable structural steel, lightweight aggregates ok'd by ASTM....July 9 26
Morong, T. M.—Grouting Arizona dam July 16 10
Mystkowski, A.—Sand needn't be treacherous....July 2 (F) *35
Sand pile compaction....Sept. 3 13

Nold, G. J.—Airbases abroad....Aug. 20 11

Orick, George T.—New York truck strike: the inside story....Aug. 27 *28
Paducah: labor lesson for an industry Nov. 19 *21
Ospina, Carlos S.—Rockfill and earthfill dams....Aug. 6 13
Owen, J. R.—Shop-built traveling form speeds sewer job....Nov. 19 *50

Perkins, N. S.—Plywood vs tornadoes July 23 12
Phelps, R. A.—Big return on small investment....Oct. 8 *240
Polivka, J. J.—More data on truss failure July 9 6
Porter, William J.—Double parking elevator....Nov. 5 13
Potter, F. P. O.—Wall-panel replacement Oct. 1 12
Powell, Harry R.—Paul Bunyon did it! July 2 12
Pruyn, Francis L.—Piles used economically?....Nov. 19 12

Quade, M. N.—Prestress beat alternates Nov. 12 12

Rice, T. O.—Safety demonstration Aug. 20 15
Ricker, J. E.—Berm shaper designed for canal work....Nov. 19 *75
Riedesel, G. A.—How to measure state interest in agricultural roads..Sept. 24 *31
Riley, Thomas E.—Surveyors are the farmers in these rice fields....Sept. 3 *34
Rinne, John E.—Seismic design not simple Oct. 15 6
Robb, Frank B.—Highway award papers Sept. 17 12
Ross, E. R.—Only geography off..Oct. 29 10
Roy, Joseph A.—Engineer incentive system....July 2 8
Royer, King—How to figure shortage? July 23 12

Sawyer, Clair N. & R. E. McKinney—Wonder drugs—will they cure waste treatment ills?....Oct. 1 *34
Scheetz, J. Paul—Soil compaction methods....July 30 14
Schmitt, R. P., H. N. Lowe Jr. & C. H. Spaulding—Army's new mobile water purification unit....Sept. 24 *39
Scott, L. P.—Reinforced pavements Dec. 24 10
Seelye, Elwyn E.—Airbases abroad Aug. 20 11
Selph, Btannen B.—Not just ashes Sept. 24 12
Shook, Clifton A. Jr.—Why did forms fail?....Dec. 10 14
Silvera, Americo & E. A. Bertsch—Aggregates cooled on belts for Vaitarna Dam in India....Sept. 3 *37
Spaulding, C. H., H. N. Lowe Jr. & R. P. Schmitt—Army's new mobile water purification unit....Sept. 24 *39
Staunton, J. L.—Rust in water system checked by deaeration....Aug. 27 *42
Stewart, Ralph W.—Code formula questioned....Sept. 17 12
Swiger, W. F.—Sand pile compaction Sept. 3 13

Talmadge, R. E.—Method not new in U. S....Sept. 17 12

Vorndran, August F. Jr.—Likes lagoon idea....Sept. 17 12

Wadleigh, George R.—Safer highways Oct. 29 10
Walker, Geo. H.—Credit for price data Nov. 26 15
Wenzel, William J.—Low-cost treatment and disposal method....Aug. 20 (F) 48
Werbin, I. Vernon—Legal decisions July 16—94; July 23—66; Aug. 13—70; Aug. 20—88; Sept. 3—76; Oct. 8—302; Nov. 12—76; Dec. 10—96; Dec. 31 42
Wilcox, F. W.—3-story prestressed building is U. S. tallest....Nov. 26 *31
Williams, Owen—Prestressing costs more Sept. 24 12
Wise, L. L.—How will federal hydro policy affect Pacific Northwest? Nov. 19 *33
Woodford, T. V. D.—Lower cost irrigation canal linings....Nov. 5 *35

* Illustrated; e, editorials; (F) Articles over a page